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ABSTRACT

These five units provide supplementary materials for special needs students who are enrolled in regular food service courses in Missouri. The special needs units are designed to facilitate the mainstreaming of students with a wide variety of handicapping and disadvantaged conditions. The units are self-paced and contain simplified line drawings, controlled text, vocabulary development, and mathematics practice exercises. Each unit consists of the following: introduction, objectives, and student assessment; terms and equipment; steps of procedure; skill sheets; activity sheets; and a unit review and performance checklist. Instructor's information includes notes, bibliography, resources--including computer software, and answer keys for skill and activity sheets and unit reviews. The units cover the following material: (1) human relations; (2) sanitation; (3) safety; (4) using basic mathematics skills; and (5) preparing foods and interpreting recipes. (KC)

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SUPPLEMENTARY UNITS

Restaurant/Institutional Food Service

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Supplementary Units for

Restaurant/Institutional Food Service

By Marilyn Parker
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Supplementary Units for

Restaurant/Institutional Food Service

Preface

Restaurant/Institutional Food Service Supplementary Units are a Special Needs curriculum project sponsored by the Missouri Department of Elementary and Secondary Education. The purpose of this project is to provide supplementary materials for special needs students who are enrolled in regular Food Service courses.

The special needs units should facilitate the mainstreaming of students with a wide variety of handicapping or disadvantaged conditions. The five units are self-paced and contain simplified line drawings, controlled text, vocabulary development, and math practice exercises. Each unit is color-coded as follows:

White: Introduction, Objectives, and Student Assessment - This page presents unit and specific objectives which the student must meet to successfully complete the unit. The introduction contains a brief motivational statement describing the purpose and content of the unit. Student Assessment allows the student to determine whether to study the material in this unit or take the unit exam.

Salmon: Terms and Equipment - This section introduces new terms and equipment necessary for the student to understand and perform the tasks shown in the unit.

Canary: Steps of Procedure - This presents a verbal and illustrated step-by-step explanation of a given skill or task.

Green: Skill Sheets - These pages provide paper and pencil exercises to develop and reinforce concepts and skills necessary to perform the procedures in the unit.

Blue: Activity Sheets - Various activities are presented to increase student involvement and provide extra practice in performing the procedures.

Pink: Unit Review and Performance Checklist - These sheets are used by the instructor to evaluate student performance. Different forms of review, including identification, matching, multiple-choice, and short answer exercises are provided.

Instructor's information, located in the front of the book, contains notes to the instructor, bibliography, a list of helpful resources (including computer software), answer keys for skill and activity sheets, and unit reviews.

Supplementary Units for

Restaurant/Institutional Food Service

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Restaurant/Institutional Food Service Units

Human Relations....Unit 1
Sanitation....Unit 2
Safety....Unit 3
Using Basic Math Skills....Unit 4
Preparing Foods and Interpreting Recipes....Unit 5

Supplementary Units for

Restaurant/Institutional Food Service

Acknowledgments

These supplementary units for special needs students and their instructors are the outcome of efforts by the following individuals:

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Supplementary Units for

Restaurant/Institutional Food Service

General Notes to the Instructor

Step 1: Read through the information in each unit before presenting it to the student.

Step 2: Make sure all equipment to be used in each unit is available.

Step 3: Prepare any handouts, visuals, or supplemental material to aid student learning activities.

Step 4: Provide student with Introduction page.

Step 5: Discuss tasks on Introduction page and give directions for completing the Are You Ready section.

Step 6: Have student complete Introduction page.

Step 7: If student elects to complete the Unit Review and Performance Checklist and does so to your satisfaction, have student proceed to the next unit. If student does not wish to do the exercises, proceed to the next step.

Step 8: Discuss the Introduction page information with the student. At this time you can also discuss the Terms and Equipment lists.

Step 9: Provide student with Steps of Procedure section.

Step 10: Select a means to present the Steps of Procedure. (This will depend upon the capabilities of the student.)
a. have student study information independently,
b. go through the Steps of Procedure individually or as a group.
c. go though the material as a group, then have students work independently.

Step 11: Instructor can demonstrate procedures to the student or class.

Step 12: Allow student time to practice the procedure. Individual judgement by the instructor will determine proper amount of time.

Step 13: Have student complete all Skill Sheets for the unit. Skill Sheets reinforce skills necessary to perform the procedures in the unit and may also be used as a self-evaluation by the student and as points of discussion by the class.

Step 14: Complete any applicable activities listed on the Activity Sheets.

Step 15: When student is ready, use the Unit Review and Performance Checklist to evaluate student's performance for that unit.

Additional Suggestions

- Try a team approach when possible:
  -Beginning students can work together after instructor's demonstrations.
  -One student experienced with the procedure can work with a beginner.
- For non-readers or ESL students, audio-visuals of the lessons can be prepared.
- Review equipment with students whenever necessary.
- Exercises can be used as a pencil and paper exercise or in any way instructor feels will help to clarify the material.
- Additional modifications can be made to take care of other disadvantaged/handicapped conditions unique to the situation.

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Microcomputer Software

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Special Needs
Follow-Up Questionnaire

QuestAir/8-87

Staff members, writers, and advisors have worked to make these instructional materials easy to use and easy to read. We welcome your input in the form of suggestions and/or corrections. Please return this questionnaire with your comments to:

Special Needs Editor
Instructional Materials Laboratory
10 Industrial Education Building
University of Missouri-Columbia
Columbia, Missouri 65211

Thank you for your time and consideration.

Supplementary Units for
Restaurant/Institutional Food Service

My overall rating of this publication is:

☐ Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor

I would suggest that to improve the materials, IML should:

_____

_____

_____

_____

_____

_____

Other Comments: _____

_____

_____

_____

_____

OPTIONAL

Name: _____

Address: _____

_____

_____

Restaurant/Institutional Food Service

Class Progress Chart

Student Names:

WHAT THE STUDENT CAN DO												
Develop Human Relations Skills												
Demonstrate Good Sanitation Practices												
Follow Safety Procedures												
Use Basic Math Skills												
Prepare Foods and Interpret Recipes												

Instructor's Signature/Date

Human Relations
Skill Sheet 1

Directions: Put an X beside the activities that show you have good working relationships with others

	1.	I talk about my co-workers behind their backs.
X	2.	I show respect for my supervisors and co-workers.
X	3.	I help my co-workers when they need help.
	4.	I expect my co-workers to help me if I get too tired.
	5.	Just because someone is having a hard day does not mean that I have to be nice to them.
X	6.	I compliment my co-workers when they do a good job.
X	7.	Sometimes I "pat co-workers on the back" for the good work they do.
X	8.	I try to be friendly every day.
	9.	I smile and talk only when I feel like it.
X	10.	I don't criticize my co-workers for their mistakes.
	11.	I get discouraged and quit when things go wrong on the job.
	12.	I don't try to get along with my co-workers.

Human Relations - Dependability
Skill Sheet 2

Directions: Place an X in the box to the right of the statement about each worker to show if the worker is dependable.

		Dependable	Not Dependable
1.	This worker is at work on time every day.	X	
2.	This worker comes back from breaks late once in a while.		X
3.	This worker sits down when he gets tired; he just does his work when he feels like it.		X
4.	This worker makes a commitment to do a job and then does it.	X	
5.	This worker makes phone calls during the working day instead of doing her work.		X
6.	This worker makes appointments for after working hours.	X	
7.	This worker promises to work for someone and then at the last minute decides not to work.		X
8.	This worker looks around for more work to do when one task is done.	X	
9.	This worker calls in sick whenever he just wants to take a day off.		X
10.	This worker tries - even when the job seems too hard.	X	
11.	This worker keeps her work area neat and organized.	X	
12.	This worker writes down what the boss says to do and asks questions when some instructions are not clear.	X	

Human Relations - Work Attitudes
Activity Sheet 1

Directions: The following story shows a day on the job for "Bad Luck Baxter," who has many problems. Some of the problems are not Baxter's fault, some are a result of Baxter's bad attitudes. How many times do you see "Bad Luck Baxter" cause his own bad luck by his poor work attitudes?

_____

Next you will find the story of "Big Break Baxter," who is having a day much like "Bad Luck Baxter's." But "Big Break" knows that a good worker tries to handle problems on the job with ability, flexibility, and good work attitudes.

If you were "Big Break Baxter," decide how you would make your own good luck and solve problems by displaying good work attitudes. Finish the story by filling in words that tell what you might say or do.

EVALUATE THIS TO THE SATISFACTION OF THE INSTRUCTOR IN ACCORDANCE WITH INFORMATION PRESENTED IN THE UNIT.

Human Relations - Communication
Skill Sheet 3

Directions: Put an X beside the activities that show you have good working relationships with others.

X 1. I make sure my voice is clear and steady.
X 2. I listen to what the other person is saying.
X 3. I try to talk about good points.
____ 4. I speak very, very softly.
X 5. I know what I want to say before I start to talk.
____ 6. I usually assume I know what the other person is saying.
X 7. I practice what I will say.
____ 8. I talk to others any time I feel like it.
X 9. I try to meet the other person half-way.
X 10. I watch the person to whom I am speaking.
X 11. I try to pick a good time to talk to another person about a problem.

AX

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Human Relations
Skill Sheet 4

Directions: These two workers want to improve their personal appearance and health. In the spaces provided, list some good hygiene, grooming, and health habits that these workers can practice to improve their appearance and health on the job.

SEE PART F, GUIDELINES FOR GOOD PERSONAL HYGIENE, GROOMING AND HEALTH, FOR POSSIBLE ANSWERS.

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Human Relations
Unit Review

Directions: Draw a circle around the words that correctly complete each sentence.

1. Show respect for supervisors by (criticizing, supporting) their decisions.
2. Show positive support of co-workers by (complimenting, laughing at) them.
3. Help others feel comfortable by (smiling and being polite, sharing your problems).
4. If your boss has to correct you, think it over (frequently, constructively).

Directions: Circle the correct answer(s) for each question. A question may have more than one correct answer.

5. Which of the following is true of communication?
   a. Communication is a two-way street between the listener and the speaker
   b. Communication means speaking to someone
   c. Communication means listening to someone who is talking
   d. Communication means understanding what someone is saying

6. If you want to communicate with someone about a problem, you should:
   a. Blame them for what went wrong
   b. Try to compromise if you don't agree
   c. Try to say something positive
   d. Pick a good time to talk

7. If you want to say something to someone, but get nervous when you talk, you might:
   a. Just walk in and try it anyway
   b. Plan ahead for what you want to say and practice it
   c. Cry about it so that person will be nice to you
   d. Fight about it so the person will know you are serious

Directions: Here are some statements overheard on the job. Circle the statement in each that shows good work attitudes.

8. a. "What do you mean, I'm not doing the job right! You can't tell me how to do my job! Now, leave me alone!"
   b. "Thanks for telling me about a quicker way to do this. Would you show me how to do that again?"

9. a. "I'm in a bad mood today. I don't see why I should have to smile and act nice to everybody."
   b. "I started off the day in a bad mood. But while I'm at work I'm going to smile and try to be pleasant with my co-workers and customers."

10. a. "I've finished my work early. I see that Joe is still really busy. I'll ask him if I can help."
    b. "I've finished my work early. I'm glad I wasn't as busy as Joe. He's still working, but now I can rest."

11. a. "I really don't care how this stuff turns out. If the customers don't like it, they don't have to buy it!"
    b. "I take pride in my work. My work is important and I am going to do it right."

Directions: List three personal hygiene or grooming habits you should have in order to be clean and neat on the job.

12. SEE PART F, GUIDELINES FOR GOOD PERSONAL HYGIENE,
13. GROOMING, AND HEALTH, FOR POSSIBLE ANSWERS.
14. _____

Directions: Put an X beside each statement that describes a good health practice.

___ 15. Go to the doctor only when you are really sick

X 16. Eat regular, well-balanced meals.

X 17. Develop positive thoughts and attitudes.

___ 18. Worry about your job.

X 19. Exercise regularly and get enough sleep.

___ 20. Wash and comb your hair weekly.

Safety
Unit Review

Directions: Put an "x" in front of each correct statement about cutting safety.

X 1. Accidents can happen if a sharp knife is used for something besides cutting.
X 2. A sharp knife is safer than a dull knife.
 3. A knife can be safely picked up by its blade or its handle.
X 4. Cutting away from yourself on a cutting board is a very safe way of cutting.
 5. Some machines do not have to be unplugged before cleaning.
X 6. Knife safety must be practiced everywere in a food service operation.

Directions: Circle the best word(s) in each sentence to make a safety rule.

7. Low-heeled shoes with (leather, rubber) soles to prevent slipping are the safest.
8. If you spill something, (walk around it, wipe it up).
9. When pans are on a stove, keep the pan handles turned (out, in).
10. Use (dry potholders, heavy trays) to carry a hot pan.
11. Watch the traffic patterns and flow in a food service operation, especially if you are carrying (hot food, damp towels).
12. Always make sure your hands are (dry, covered) when working with electrical appliances.

Directions: Circle the letter of the correct answer for each statement below. Statements may have more than one correct answer.

13. When using strong caustic solutions, you should wear the following safety equipment:
 a. leather shirt
 (b.) rubber gloves
 (c.) goggles
14. Good safety rules for pesticides are:
 (a.) Store pesticides away from food.
 (b.) Keep pesticides away from counter tops.
 (c.) Wash your hands after handling pesticides.

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Directions: Fill in the blanks with the words below to make correct sentences about how to prevent or how to put out a fire. Each word is used twice.

electrical fires **ordinary fires** **grease fires**

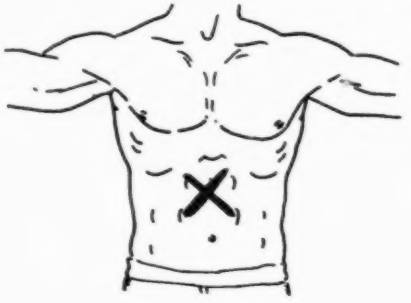
15. Store paper products away from heat sources to prevent ORDINARY FIRES.
16. Fat burning in a frying pan would be considered GREASE FIRES.
17. Report faulty electrical equipment to your supervisor to prevent ELECTRICAL FIRES.
18. Use a Class C or multipurpose fire extinguisher to put out ELECTRICAL FIRES.
19. Smother GREASE FIRES with damp towels, baking soda, or use a Class B or multipurpose fire extinguisher.
20. Use water, a damp towel, or a Class A or multipurpose fire extinguisher to put out ORDINARY FIRES.

Directions: Match the proper first aid technique with the accident listed by placing the correct letter in the blank space.

C. 21. severe cut
A. 22. serious fall
b. 23. burn

a. Don't move the victim.
b. Hold affected area under cold water or apply ice.
c. Apply pressure to the affected area.

24. Mark an "x" on the picture to show where to apply pressure when using the Heimlich maneuver.



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Safety
Skill Sheet 1

Directions: Put a mark in the box beside each statement that tells a practice which you currently use in your laboratory setting. Afterwards, circle the numbers of the statements which are examples of safety practices which you should follow in the lab.

YES	NO	Do You:
☐	☐	1. Cut away from yourself when using a knife?
☐	☐	2. Keep knives visible when cleaning or storing them?
☐	☐	3. Use the proper knife for each job?
☐	☐	4. Operate electrical appliances only with dry hands?
☐	☐	5. Pay attention while operating equipment?
☐	☐	6. Keep handles turned away from the edge of the stove?
☐	☐	7. Keep pesticides away from food?
☐	☐	8. Wipe up spills immediately?
☐	☐	9. Report defective equipment?
☐	☐	10. Keep floors free of litter?
☐	☐	11. Keep work areas clean and orderly?
☐	☐	12. Carry hot pans with a dry hot pad?
☐	☐	13. Wear safe work shoes?
☐	☐	14. Know where the fire extinguishers are located?
☐	☐	15. Know how to use fire extinguishers?

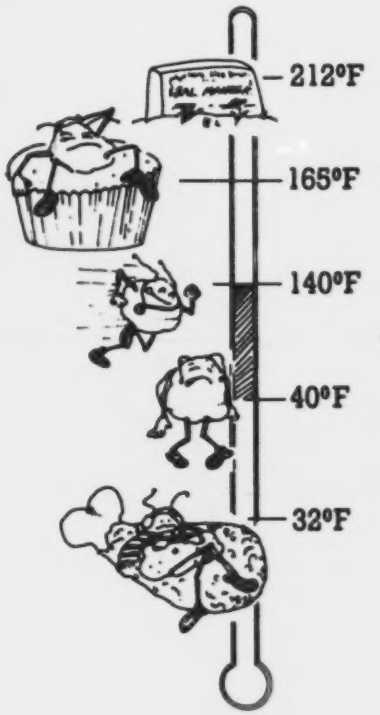
APPROPRIATE BOX SHOULD BE CHECKED ACCORDING TO SAFETY PRACTICES USED IN YOUR LABORATORY SETTING. ALL STATEMENTS SHOULD BE CIRCLED AS A GOOD SAFETY PRACTICE.

Sanitation
Skill Sheet 1

Directions: Study the temperature chart below and how these temperatures affect foods.

Tell if these temperatures are out of the danger zone for foods. In the blank beside each number, write S if they are safe and U if they are unsafe.

U	1. 101°F	U	4. 110°F	U	7. 98°F
S	2. 210°F	S	5. 145°F	U	8. 49°F
S	3. 36°F	U	6. 71°F	S	9. 13°F



COOKING ZONE
Destroys most bacteria in a few minutes, provided the entire mass reaches the cooking temperature

WARMING ZONE
Prevents multiplication of bacteria but allows them to survive for hours

DANGER ZONE
Keep food out of this temperature range except for short periods of time

COOLING ZONE
Safe for relatively short periods of time - prevents multiplication of bacteria

SUB-FREEZING ZONE
Prevents multiplication of bacteria but most bacteria will survive freezing

Sanitation
Skill Sheet 2

Directions: Rate yourself on each of the following questions.
Use this scale: 6: ALWAYS
4: USUALLY
2: OCCASIONALLY
0: NEVER

When a question refers specifically to the opposite sex, place a N/A (not applicable) in the blank and score it as 6.

When you have completed the evaluation, total your score and compare it to the rating scale at the end.

You will not turn in this assignment - it is for your personal use.

QUESTIONS	RATING
1. Do you take a shower or bath daily?	_____
2. Do you use an effective deodorant or antiperspirant daily?	_____
3. Do you shave as often as needed?	_____
4. Do you check your fingernails daily and repair or clean them as often as needed?	_____
5. Do you shampoo your hair frequently?	_____
6. Do you brush your teeth daily?	_____
7. Do you get enough sleep and rest so that you feel refreshed?	_____
8. Do you put on clean hoisery or socks and undergarments daily?	_____
9. Are your uniforms clean and pressed?	_____
10. Do you check garments for split seams, ripped hems, or loose buttons before wearing them?	_____
TOTAL:	_____

RATING:

60-55: Great, you take pride in your appearance.

54-50: Good, you'd probably pass inspection.

49-45: Fair, you're not really trying.

45 or less: Poor, your best friend won't even tell you!

STUDENT WILL REACH OWN CONCLUSIONS,
THIS SKILL SHEET IS NOT TO BE TURNED IN.

Sanitation
Skill Sheet 3

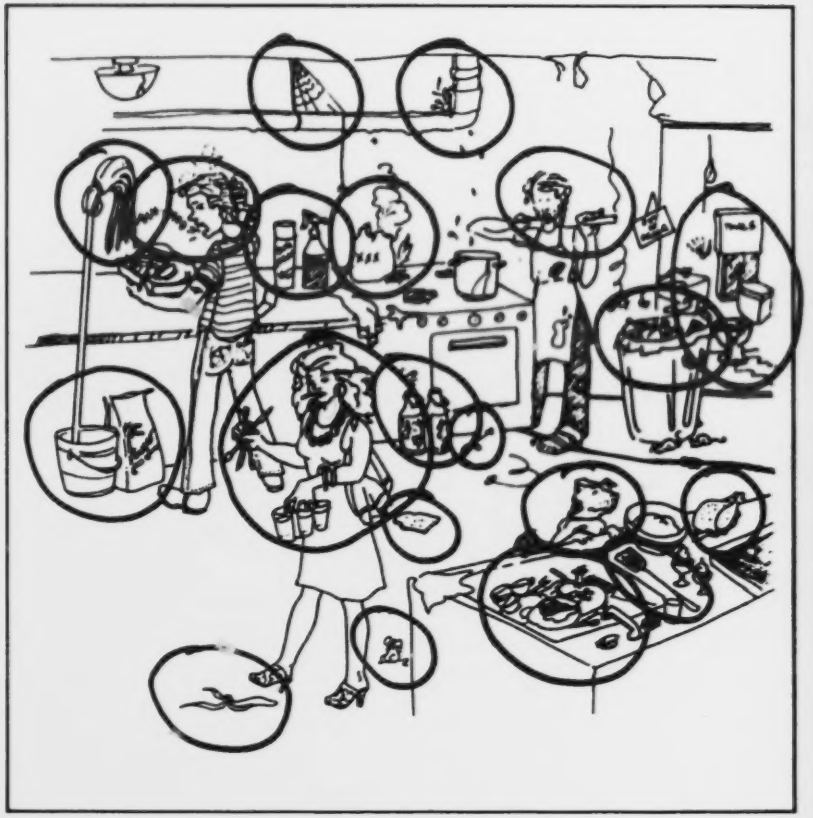
Directions: Visit a food service operation and complete the following chart about food handling and storage. Discuss methods of food handling and storage with your instructor.

	YES	NO
1. Were foods in the danger zone no longer than necessary?		
2. Were hot foods placed in shallow containers to cool?		
3. Was food stored on the floor?		
4. Were storeroom floors clean and dry?		
5. Was the FIFO policy being used?		
6. Were there signs of rodents or insects in storeroom?		
7. Was food covered and being stored in refrigerator?		
8. Were cleaning supplies stored separately from food stuffs?		
9. Were all cleaning supplies labeled?		
10. Were all cleaning supplies tightly sealed?		
11. Were all raw fruits and vegetables being washed before use?		

EVALUATE TO THE SATISFACTION OF THE INSTRUCTOR, BASED ON THE STUDENT'S PARTICIPATION IN THE ACTIVITY

Sanitation
Skill Sheet 4

Directions: Circle at least ten (10) sanitation violations in the picture below.



Sanitation

Skill Sheet 5

Directions: Use this sample list of health code requirements to rate your food service operation.

	YES	NO
SOURCES OF FOOD:		
• Is food wholesome with no spoilage?		
• Is food in original containers with proper labels?		
FOOD PROTECTION:		
• Does potentially hazardous food meet temperature requirements during preparation, storage, and services?		
• Is food properly thawed?		
PERSONNEL:		
• Are workers free from infection?		
• Are their hands clean?		
• Are clean clothes and hair restraints worn?		
EQUIPMENT AND UTENSILS:		
• Are work surfaces clean?		
• Is equipment washed after use?		
• Is equipment stored properly?		
• Is the wash and rinse water clean and at the proper temperature?		
• Are all of the surfaces of equipment and utensils which contact the food clean?		
• Are single service articles discarded instead of being reused?		

	YES	NO
WATER SUPPLY AND SEWAGE DISPOSAL:		
• Is the water source safe with hot and cold water under pressure?		
• Is the sewage system working properly?		
PLUMBING:		
• Do the sink drains work freely?		
• Do the floor drains work freely?		
TOILET AND HANDWASHING FACILITIES:		
• Are these facilities located away from food areas?		
• Are these rooms kept clean and in good repair?		
PEST CONTROL:		
• Are outer openings protected from insects, rodents, and other animals?		
FLOORS, WALLS, AND CEILINGS:		
• Are floors clean and in good repair?		
• Are walls and ceilings clean and in good repair?		
LIGHTING:		
• Is necessary lighting provided?		
VENTILATION:		
• Are rooms and equipment properly ventilated?		
DRESSING ROOMS AND LOCKERS:		
• Are rooms and lockers clean?		
OTHER OPERATIONS:		
• Are toxic items, soaps, and detergents stored and labeled properly?		
• Are the grounds free of litter?		
• Is cleaning equipment stored properly?		

EVALUATE TO INSTRUCTORS SATISFACTION OF STUDENT'S INVOLVMENT AND UNDERSTANDING

37 38

Sanitation
Unit Review

Directions: Circle the letter of the correct answer for each statement.

1. The bacteria Danger Zone of food is between the temperatures:
   A. 20°F to 40°F (B.) 40°F to 140°F C. 140°F to 160°F D. 160°F to 200°F

2. Temperatures above ____°F will slow the growth of most bacteria.
   A. 110°F B. 120°F C. 130°F (D.) 140°F

3. The food-borne illness that is most common and is found on human skin, mouths, and throats is:
   (A.) Staph B. Botulism C. Perfringen D. Salmonella

4. The chemicals used to kill germs on counters and other surfaces in kitchens is called:
   A. Detergent B. Pesticide C. Antiseptic (D.) Sanitizer

5. The poison produced by growing bacteria is called:
   (A.) Toxin B. Sanitizer C. Hygiene D. Pesticide

Directions: Circle the letter of the statements that are true.

6. A. If you wash your hands before work, you don't need to wash them again all day.
   (B.) Bathe or shower daily.
   (C.) Brush your teeth after every meal if possible.
   (D.) Shampoo frequently.
   (E.) Use deodorants daily.
   F. It is not important to keep your fingernails trimmed.
   (G.) Have a regular check-up.
   (H.) Wear clean clothes and undergarments.
   (I.) Get enough rest and sleep to feel refreshed.

7. The practice of using older food before newer food is known as:
   (A.) First In/First Out (FIFO) B. Storage C. Perishable D. Non-perishable

8. Food should be stored on shelves that are at least _____ inches off of the floor.
   A. 2 inches B. 4 inches C. 6 inches (D.) 8 inches

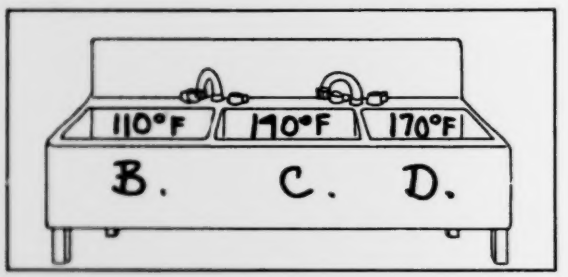
9. Cleaning compounds should be stored (close to, (away from) food items.

10. Raw meat should be stored on the (bottom shelf/ top shelf) of a refrigerator.

11. To maintain proper cooling, refrigerator temperature should be at:
    (A.) 32°F to 40°F B. 40°F to 45°F C. 45°F to 50°F D. 50°F to 55°F

12. To maintain proper freezing, freezer temperature should be at or below:
    A. 32°F B. 34°F C. 40°F (D.) 0°F

13. Fill in the sink below to indicate what the temperature should be in each sink compartment when washing pots and pans.
    A. 100°F B. 110°F C. 140°F D. 170°F



Directions: Circle the correct answers.

14. Pots and pans should (air dry/ be towel dried) to prevent contamination.

15. Keep lids (on/ beside) garbage containers to discourage pests.

16. To avoid clogging and germs, clean sink drains (daily/ monthly).

Directions: Circle the guidelines for compliance with local health codes.

17. (A.) Keep items in original containers and properly labeled.
    (B.) Potentially hazardous food must meet temperature requirements for preparation, storage, and service.
    (C.) Personnel should have clean hands, clean clothes, and no infections.
    D. Wash and rinse water temperatures are not important for killing germs.
    (E.) Water source must be safe and under pressure.
    (F.) Sink and floor drains must work freely.
    (G.) Toilet facilities must be conveniently located away from food areas.
    (H.) No insects, rodents, or animals are allowed in food preparation area.
    (I.) Rooms and equipment must be properly ventilated.
    J. Placement and labeling of toxic items, soaps, and detergents is not necessary.

Using Basic Math Skills
Skill Sheet 1

Directions: Fill in the blanks with the appropriate abbreviations.

1. teaspoon: t. or tsp.
2. tablespoon: T. or tbsp.
3. cup: c. or C.
4. pint: pt.
5. quart: qt.
6. gallon: gal.
7. ounce: oz.
8. fluid ounce: fl. oz.
9. pound: lb. or #
10. dozen: doz.

Directions: Write the correct number of each equivalent in the blanks.

1. 3 teaspoon = 1 tablespoon
2. 16 tablespoon = 1 cup
3. ½ cup = 1 stick of butter
4. 2 cup = 1 pint
5. 2 pint = 1 quart
6. 4 tablespoon = 2 ounces
7. 16 ounces = 1 pound
8. 8 ounces = 1 cup

Using Basic Math Skills
Activity Sheet 1

Directions: Working with a partner or in a small group, solve each problem below and write your answer in the space provided.

1. The recipe you are using calls for 1 cup of butter. How many sticks of butter will you need? 2 STICKS

2. You need 3 cups of milk for your recipe. When you look in the refrigerator, you find only a new pint container of milk. Is this enough milk? NO
   2 CUPS = 1 PINT

3. The kitchen is running short on milk and you are sent to a nearby grocery store to get 6 gallons of milk. When you arrive, you discover that there are only quart containers of milk in the refrigerator case. How many of these quart containers of milk will you need to get 6 gallons of milk? 24
   4 QUARTS = 1 GALLON 4×6 = 24 QUARTS

4. The measuring cup has disappeared from the kitchen and you don't have time to look for it. How many tablespoons of sugar will you need to measure to get 3/4 cup of sugar? 12
   16 tbsp. = 1 CUP $\frac{3}{4} \times 16^{4}$ or 3×4 = 12

5. You have a new measuring cup which you think is not measuring accurately. You know you can trust your old reliable tablespoon. How many tablespoons of water would you measure into the measuring cup to see if it measures 1 cup accurately? 16

Using Basic Math Skills
Activity Sheet 2

Directions: Complete these measuring activities to become more familiar with measuring utensils and equipment.

1. Use liquid measuring cups and water to demonstrate that:
   - 4 cups equal 1 quart
   - 4 quarts equal 1 gallon

2. Using a teaspoon and a tablespoon to measure granulated sugar, determine:
   - How many teaspoons equal 1/3 cup
   - How many tablespoons equal 1/3 cup
   - How many teaspoons equal 2/3 cup
   - How many tablespoons equal 2/3 cup

3. Measure 1/4 cup of brown sugar by packing the sugar down with a spoon and leveling off the excess.

4. Using a portion scale, place wax paper on the scale and add shortening until 4 ounces are measured.

5. Using a baker's scale, weigh the following foods:
   - 8 ounces of dry rice
   - 8 ounces of granulated sugar

EVALUATE TO INSTRUCTOR'S SATISFACTION OF STUDENT'S ACCURACY AND UNDERSTANDING.

Using Basic Math Skills
Skill Sheet 2

Directions: Convert the following recipes:

Show Your Work

1. Recipe serves 20
   Convert to serve 10
   - 5 quarts flour: 2½
   - 2 T. salt: 1
   - 4 pounds shortening: 2
   - 3 cups water: 1½

2. Recipe serves 20
   Convert to serve 40
   - 5 quarts flour: 10
   - 2 T. salt: 4
   - 4 pounds shortening: 8
   - 3 cups water: 6

3. Convert the following amounts:
   - A. 2 lbs. 8 oz. = 40 oz.
   - B. 36 oz. = 2 lb. 4 oz.

apx

Using Basic Math Skills
Skill Sheet 3

Directions: Figure the cost per portion for this recipe for Cheddar Cheese Rolls.

Cheddar Cheese Rolls

Ingredients	Quantity	Market Price	Cost
Water	1 lb. x	No Cost	0
Dry Yeast	4 oz. x	.07 per oz.	.28
Sugar	6 oz. x	.32 per lb.	.72
Salt	2 oz. x	.01 per oz.	.02
Milk Solids	6 oz. x	.40 per lb.	.15
Eggs	1 lb. x	.42 per lb.	.42
Butter	6 oz. x	.48 per lb.	.18
Flour	6 lb. x	.13 per lb.	.78
Cheddar Cheese	1 lb. 8 oz. x	.40 per lb.	.60
		Total Cost:	3.15
Yield: 24 rolls		Cost Per Portion:	.13

NOTE: When a quantity is given in ounces and the market price is stated per pound, you must figure the market price per ounce before you can figure the cost per portion. Since there are 16 ounces in a pound:

PRICE PER POUND ÷ 16 = PRICE PER OUNCE

For Example:

INGREDIENT	QUANTITY	MARKET PRICE	COST
Sugar	6 oz. x	.02 per oz. or .32 per lb.	=.12

02
16)32
32

Using Basic Math Skills
Skill Sheet 4

Directions: Write the correct number in each box to indicate how many of each type of coin and bill should be given to a customer as change. (Start with the amount of the ticket and work toward the amount received.)

Sales Number	Amount of Ticket	Amount Received	Coins					Bills		
			1¢	5¢	10¢	25¢	50¢	$1	$5	$10
A.	$1.98	$5.00	2					3		

Sales Number	Amount of Ticket	Amount Received	Coins					Bills		
			1¢	5¢	10¢	25¢	50¢	$1	$5	$10
1.	$9.15	$20.15						1		1
2.	$24.95	$50.00		1					1	2
3.	$12.40	$15.00			1		1	2		
4.	$32.41	$40.00	4	1			1	2	1	
5.	$15.25	$20.25							1	

Directions: Determine the amount of a 15% gratuity (tip) for each of the following tickets.

Example: $20.00 x .15 = $3.00

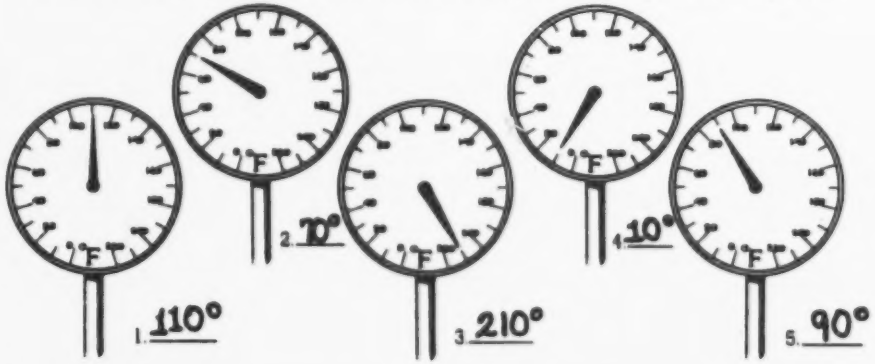
	TICKET	TIP
6.	$12.00	$1.80
7.	$15.00	$2.25
8.	$24.00	$3.60
9.	$50.40	$7.56
10.	$42.30	$6.35

Using Basic Math Skills
Skill Sheet 5

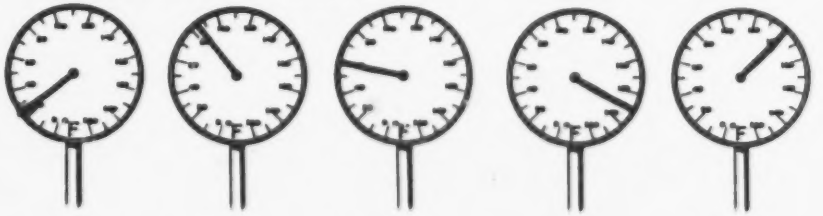
The pocket thermometer is often used by food service workers. It is used to determine the temperature of meats, vegetables, sauces, pastries, etc., It is important that you know how to read the measurements on this thermometer.

Each long line on the thermometer measures 20 degrees. Each small line on the thermometer measures 10 degrees.

Directions: Read the following thermometers and record the temperatures they show.



Directions: Look at the temperature shown under each of the thermometers and mark that temperature on the thermometer.



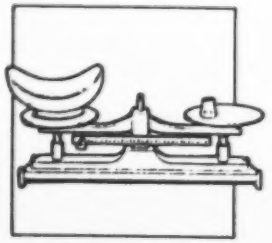
1. 25° 2. 85° 3. 60° 4. 190° 5. 140°

Using Basic Math Skills
Unit Review

Put an x in the box of the correct answer for each statement.

1. _____ teaspoon equals 1 tablespoon
   ☐ 2 ☒ 3 ☐ 4 ☐ 5
2. _____ tablespoons equal 1 cup
   ☐ 4 ☐ 8 ☐ 12 ☒ 16
3. _____ cups equal 1 stick of butter
   ☐ ¼ ☒ ½ ☐ ¼ ☐ 1
4. An example of a portion utensil is a:
   ☐ Baker's Scale
   ☒ Scoop (dipper)
   ☐ Bowl
   ☐ Cash Drawer
5. Decrease the following recipe. It now serves 20 portions; convert it to serve 10 portions.
   A. 5 quarts flour: 2½
   B. 2 T. salt: 1
   C. 3 pounds shortening: 1½
   D. 4 c. water: 2
6. Increase the same recipe to serve 40 portions.
   A. 5 quarts flour: 10
   B. 2 T. salt: 4
   C. 3 pounds shortening: 6
   D. 4 c. water: 8
7. Figure a 15% gratuity for the following situation. Your bill for dinner was $24.00. What should you leave for the gratuity? $3.60
8. It cost $18.00 to buy all of the ingredients for an Angel Food cake. The cake will yield 12 portions. What will the portion cost be? $1.50

9 Identify the following utensils.



A LADLE B PORTION SCALE C BAKER'S SCALE

10 Label the compartments of this cash drawer to indicate the coins or bills which belong in each section.

ROLLS CHECKS COUPONS	$20	$10.	$5.	$1
.60¢	25¢	.10¢	5¢	.01¢

11 Circle the coins and bills which should be given as change when a customer gives you a ten dollar bill to pay for a meal costing $7.87.

Using Basic Math Skills

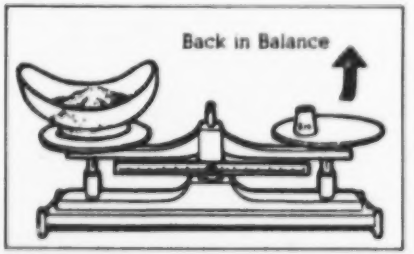
12 Convert the following mixed weight to ounces.

3 lb. 2 oz. = 50 oz.

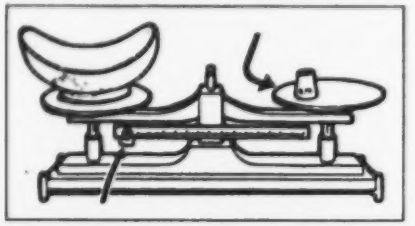
13 Match each abbreviation with the correct term by writing the correct letter in each blank.

F lb.	A tablespoon
C t	B fluid ounce
A T	C teaspoon
D c	D cup
E oz.	E ounce
B fl. oz.	F pound

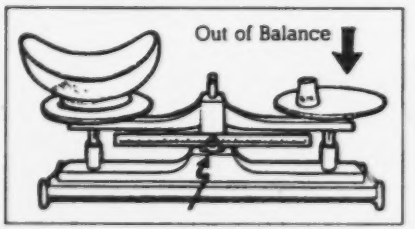
14 Place these illustrated steps for using a baker's scale to weigh eggs in the correct order by numbering them A, B, and C.



C Add eggs until the desired weight is reached.



A Balance the empty scale.



B Move the weight indicator to the desired weight.

Preparing Foods and Interpreting Recipes
Skill Sheet 1

Directions: Label the parts of the recipe below by writing the following words in the correct blank lines.

PORTION NOTE QUANTITY UTENSILS/EQUIPMENT YIELD INGREDIENTS INSTRUCTIONS/METHODS

Meat Sauce

1. YIELD : 1 gal.
2. PORTION : 30 servings-4 oz. each
3. UTENSILS/EQUIPMENT : french knife, saute pan, spoon, sauce pan

4. INGREDIENTS	5. QUANTITY	6. INSTRUCTIONS/METHODS
Olive Oil	½ c.	1. Saute onions for 10 minutes.
Onions, chopped	1 lb.	2. Remove onions to sauce pot
Beef, ground	2 lb.	3. In same pan, saute ground beef.
Tomatoes, crushed	1 no.-10 can	4. Pour off grease and add beef to sauce pot.
Garlic	1 T.	5. Place all ingredients in saucepot. Stir and simmer at 200° F for 4 hours.
Basil leaves	1 T.	6. Salt and pepper to taste.

7. NOTE : Serve on spaghetti

Preparing Foods and Interpreting Recipes
Skill Sheet 2

Directions: Study the recipe below. Use the recipe to answer the following questions.

Recipe for Ham Loaf

Yield: 50 portions
5 pans (5 x 9 inches)

Portion Size: 4 oz. slices

Equipment/Utensils: bowl, mixer, 5 (5 x 9 inch) loaf pans

INGREDIENTS	QUANTITY Weights	QUANTITY Measures	METHOD
			Preheat oven to 350° F.
Ground fresh pork	4 lb	8 c	**Combine:** meats, mix, beaten eggs, black pepper, and bread crumbs.
Ground cured ham	5 lb	10 c	**Blend:** all ingredients on low speed of mixer until ingredients are blended. Do not overmix.
Ground beef	5 lb	10 c	
Milk	1 qt	4 c	
Eggs, beaten	14 eggs	3 c	
Black pepper	1 lb. 8 oz	2 t	
Bread crumbs	1 lb	4 c	**Press:** mixture into 5 - (5 x 9 inch) loaf pans. 3 lb. 8 oz. per pan.
			Bake: at 350° F for 1 ½ hours.
			Cut: 10 slices per pan.

Note: Glaze may be added during last 30 minutes of baking.

1. What is the yield of this recipe? 50 PORTIONS, 5 PANS (5x9 INCHES)
2. What size should the portions be? 4 OZ. SLICES
3. What is the name of the recipe? HAM LOAF
4. What are the ingredients? PORK, HAM, BEEF, MILK, EGGS, BLACK PEPPER, BREAD CRUMBS
5. What quantity of milk is needed? 1 QUART
6. What special utensils and equipment are needed? BOWL, MIXER, LOAF PANS
7. How long should the food be cooked? 1-1½ HOURS
8. What temperature should be used? 350° F.
9. How would you perform the following tasks?

   Preheat: PRE HEAT OVEN TO 350° F

   Blend: BLEND ON LOW SPEED, DO NOT OVERMIX.

Preparing Foods and Interpreting Recipes
Skill Sheet 3

Directions: Study the menu items and cooking times listed below. Then list the items in the order in which they should be prepared.

MENU	COOKING TIMES
Fried Chicken	45 Minutes
Baked Potatoes	40 Minutes
Broccoli	10 Minutes
Brown & Serve Rolls	5 to 8 Minutes

Order of Preparation:

1. FRIED CHICKEN
2. BAKED POTATOES
3. BROCCOLI
4. BROWN + SERVE ROLLS

Preparing Foods and Interpreting Recipes
Activity Sheet 1

Directions: Study the menu items and times listed below. Look at the Order of Preparation list you prepared on Skill Sheet 3. In the space below, prepare a production schedule for this menu. Plan to serve the meal at 5:00 p.m.

MENU	TIME REQUIRED
Fried Chicken	45 Minutes
Baked Potatoes	40 Minutes
Broccoli	10 Minutes
Brown & Serve Rolls	5 to 8 Minutes
Get out utensils and equipment	15 Minutes
Put food into serving dishes	10 Minutes

3:30 - _____
3:35 - _____
3:40 - _____
3:45 - _____
3:50 - GET OUT UTENSILS AND EQUIPMENT
3:55 - _____
4:00 - _____
4:05 - PREPARE FRIED CHICKEN
4:10 - PREPARE BAKED POTATOES
4:15 - _____
4:20 - _____
4:25 - _____
4:30 - _____
4:35 - _____
4:40 - PREPARE BROCCOLI
4:45 - PREPARE BROWN & SERVE ROLLS
4:50 - PUT FOOD IN SERVING DISHES
4:55 - _____
5:00 - Serve Meal

Unit Review

A. **Directions:** There are seven parts to a standardized recipe. Match each one to its correct definition by filling in the blank with the correct letter.

B 1. Quantity
G 2. Yield
E 3. Portion
D 4. Method/Instructions
F 5. Ingredients
C 6. Utensils
A 7. Note

A. Additional information given at the end of a standardized recipe suggesting variations for serving recipe
B. The part of the recipe that gives the exact amounts of ingredients needed
C. The part of a recipe that lists the equipment needed
D. The part of the recipe that gives step-by-step directions
E. An individual serving
F. The part of the recipe that lists the food, spices, and flavorings to be combined to produce a certain dish
G. The amount of food a recipe will produce

B. **Directions:** Below are some of the steps you would take in preparing a menu consisting of meat loaf, baked potatoes, steamed mixed vegetables, and gelatin salad. These steps are not in the order in which they should be completed. Number the steps in the order you should perform them.

3 A. Combine the ingredients for the meat loaf and place it in oven. The meat loaf will take 1½ hours to cook.
2 B. Turn on the oven and set it to desired temperature. (Preheat)
4 C. Wash baking potatoes, rub with oil, place in foil and place in oven. These will bake in 1 hour.
1 D. Prepare gelatin and place in refrigerator to gel. This will take 3 to 4 hours.
5 E. Cook frozen mixed vegetables, season, and serve. This will take about 10 minutes.

C. **Directions:** Match the following cooking methods with the correct definitions by putting the correct letter in the blank space.

C 1. fry
A 2. bake
E 3. roast
B 4. broil
H 5. scald
D 6. braise
F 7. simmer
G 8. steam

A. Cook with dry heat in the oven
B. Cook with dry heat from a source close to food (such as charcoal, gas flames, or electric coils)
C. Cook in oil
D. Cook in a small amount of liquid at a low temperature in a covered container
E. Cook meat or poultry uncovered in an oven without adding liquid
F. Cook just below the boiling point; small bubbles will be constantly forming on the bottom of the pan and slowly rising to the top
G. Cook food inside a metal basket (or holder containing small holes) placed inside a pot with a small amount of boiling water, so steam will cook the food
H. Heat a liquid, usually milk, until tiny bubbles appear around the edge

D. **Directions:** Match the following cutting methods with the correct definitions.

E 1. slice
A 2. mince
C 3. cube
D 4. shred
B 5. chop

A. Cut food into the smallest pieces possible
B. Cut food into small pieces that are the same size
C. Cut food into chunks which are usually ½ inch squares
D. Cut into thin, narrow strips (also called julienne)
E. Cut a food into thin pieces of equal thickness

E. **Directions:** Match the following mixing methods with the correct definitions.

B 1. whip
E 2. beat
A 3. blend
D 4. cream
C 5. cut in

A. Thoroughly mix two or more ingredients until you cannot tell one from the other using a spoon, electric mixer, or blender
B. Beat rapidly with a wire whisk, hand beater, or electric mixer to add air and increase volume
C. Combine shortening and a flour mixture when making biscuits or pastry. Use pastry blender or two knives
D. Mix shortening or butter with sugar using a mixer or the back of a spoon until the mixture is soft and creamy
E. Make a mixture light and smooth by lifting it over and over with a spoon, fork, wire whip, hand beater, or electric mixer

F. **Directions:** Below are some of the steps you would take in preparing a food item from a recipe. Check the steps which must be done BEFORE you start to cook.

✓ 1. Check the amount that the recipe will yield.
___ 2. Follow the step-by-step instructions in the exact order in which they are written.
✓ 3. Carefully read the recipe all of the way through once.
___ 4. Follow the serving instructions carefully.
___ 5. Reread the directions carefully.
✓ 6. Assemble all ingredients.
___ 7. Clean your work area, utensils, and equipment.
✓ 8. Collect all of the necessary equipment and utensils.
✓ 9. Perform all pre-preparation tasks.
✓ 10. Think about each procedure and how you can plan the tasks.

SN-91-S

SUPPLEMENTARY UNITS

Restaurant/Institutional Food Service

Human Relations

Instructional Materials Laboratory
10 Industrial Education Building
University of Missouri-Columbia
314/882-2883

Human Relations
Introduction

Being successful on the job requires more than just being able to do the work. You must also be able to work well with other people, be dependable, have a positive attitude toward your work, be able to communicate with others, and have good personal habits.

Skills and personal habits are learned as you grow to maturity so it is important for you to develop good working relationships with people by developing positive working skills and personal habits.

This unit looks at personal characteristics which will help you to get and keep satisfying employment.

Unit Objectives

After completion of this unit, you will be able to demonstrate proper personal characteristics for a job.

Specific Objectives

After completion of this unit, you should be able to specifically:

1. Recognize and demonstrate characteristics of good working relationships.
2. Identify and demonstrate dependable work habits.
3. Discuss and demonstrate positive work attitudes.
4. Use effective communication skills.
5. Identify and demonstrate good personal hygiene and grooming practices.

Are You Ready?

Check the statement which is true for you.

☐ I can do the tasks and I am ready to do the Performance Checklist.

SEE YOUR INSTRUCTOR

☐ I want to study the information in this unit before doing the Performance Checklist

TURN THE PAGE AND BEGIN

A. Terms for Understanding Human Relations

Terms

1. Ability - being able to do a task
2. Attitude - the way we feel or react toward someone or something
3. Commitment - a sense of responsibility and determination to do a job
4. Communication - talking, listening, and interpreting what is said
5. Criticism - good or bad remarks to help us learn and change habits
6. Dependability - your ability to always do what is expected of you
7. Enthusiastic - being eager and positive in your outlook and actions
8. Flexible - ability to change or adapt to different situations
9. Habit - something we do, either good or bad, without thinking about it
10. Initiative - ability and desire to do more than is expected of you
11. Mature - basing actions and decisions on careful consideration of what the results will be
12. Relationships - interaction with others (co-workers, friends, etc.)
13. Respect - showing a high or special regard for someone or something
14. Skill - knowledge and ability to do a task well

B. Guidelines for Maintaining Good Working Relationships

In order to have a good relationship, you must first learn what a good relationship is. How well do you get along with your family and friends is a good indication of how well you will get along with co-workers. If you get along with your co-workers, you may stand a better chance of keeping your job and being promoted.

1. Show respect for supervisors and co-workers. Don't talk about them behind their backs or criticize their decisions. Don't call people names or laugh at their mistakes. Make sure you don't have habits which might insult others.

2. Help your co-workers when they need help. Look around and see if someone needs help and give help willingly.

3. Help others feel comfortable. If someone is having a hard day, be sure not to add to the problem. Be a friend. Smile and be polite to co-workers and supervisors as well as customers.

4. Compliment your co-workers. Let them know when you think they did something well. Your co-workers will appreciate reinforcement like this. Showing positive support of co-workers will help your working relationships.

5. Learn how to handle discouragement. If something goes wrong on the job, or if your boss has to correct you about something you did, don't get discouraged and quit. Think it over constructively:
   - Why was the boss or supervisor unhappy with what you did?
   - What could you have done differently?
   - What can you learn from the experience?

DO SKILL SHEET 1

Human Relations
Skill Sheet 1

Directions: Put an X beside the activities that show you have good working relationships with others.

_____ 1. I talk about my co-workers behind their backs.

_____ 2. I show respect for my supervisors and co-workers.

_____ 3. I help my co-workers when they need help.

_____ 4. I expect my co-workers to help me if I get too tired.

_____ 5. Just because someone is having a hard day does not mean that I have to be nice to them.

_____ 6. I compliment my co-workers when they do a good job.

_____ 7. Sometimes I "pat co-workers on the back" for the good work they do.

_____ 8. I try to be friendly every day.

_____ 9. I smile and talk only when I feel like it.

_____ 10. I don't criticize my co-workers for their mistakes.

_____ 11. I get discouraged and quit when things go wrong on the job.

_____ 12. I don't try to get along with my co-workers.

C. Guidelines for Displaying Dependability at Work

Dependability means you can be relied on to do a certain thing. This may be getting your work done on time or being at work every day. You have a responsibility to the place you work to be dependable. Workers who cannot be relied on usually find themselves without a job.

Some ways to show you are dependable include:

1. Come to work on time. You must be on time for work and after each break. If you are not on time, someone has to do your work for you. The business suffers because you can't be counted on to be there.

2. Do what you say you are going to do. Do not offer to help and then NOT help. If you tell a co-worker you will work on your day off, then you must do so.

3. Use your time well at work. A dependable person makes good use of time at work. Look for things to do, and stay busy doing WORK.

4. Take care of personal matters on your own time. Make telephone calls during breaks or lunch time. Try not to schedule appointments during work hours.

5. Take sick days only when you are truly sick. If you use all of your sick days you may not have time off for illness. Be honest.

6. Do a reasonable amount of work. Don't assume you are doing as much as everyone else. Ask your boss how you are doing. Look around and try to find out how to be the best worker possible.

7. Be consistent in your efforts. Try to do your best for every job you are assigned, not just for those that are easier or more pleasant.

8. Have confidence in yourself. Keep trying, even though it may seem like the work is too hard. Believe you can do the job, and more than likely you will do it well. Don't give up; a difficult job is a challenge, so give your best effort!

9. Make sure you understand what is expected of you. If you do not know how to do a job, ask your boss or another worker for assistance. Listen carefully when you get instructions and ask about anything you do not understand. It is better to ask a question than to do a task the wrong way.

10. Follow directions. Repeat directions to yourself just to make sure you remember exactly what you are to do. Write down duties if you think you might forget.

11. Organize your work and plan how you will use your time. You save a lot of time by knowing what you have to do and when it should be done. Write down the things you have to do. Then schedule your work so that you can get it all done.

12. Keep your work area neat and organized. A sloppy, disorganized work area may keep you from getting your work done on time. Sloppy work areas are also dangerous.

DO SKILL SHEET 2

Human Relations - Dependability
Skill Sheet 2

Directions: Place an X in the box to the right of the statement about each worker to show if the worker is dependable.

	Dependable	Not Dependable
1. This worker is at work on time every day.		
2. This worker comes back from breaks late once in a while.		
3. This worker sits down when he gets tired; he just does his work when he feels like it.		
4. This worker makes a commitment to do a job and then does it.		
5. This worker makes phone calls during the working day instead of doing her work.		
6. This worker makes appointments for after working hours.		
7. This worker promises to work for someone and then at the last minute decides not to work.		
8. This worker looks around for more work to do when one task is done.		
9. This worker calls in sick whenever he just wants to take a day off.		
10. This worker tries - even when the job seems too hard.		
11. This worker keeps her work area neat and organized.		
12. This worker writes down what the boss says to do and asks questions when some instructions are not clear.		

D. Guidelines for Demonstrating a Good Work Attitude

Showing that you have a good work attitude is very important if you want to keep your job and get along well with others. You must show that you like what you are doing EVERY DAY, not just when you feel like it. People notice you every day, so you must try to show a good work attitude at all times.

1. Take pride in your work. Recognize that your job is an important one - no matter what you do. Stay with a job. Give yourself a chance to learn to do the job well. Be committed to doing a good job.

2. Be enthusiastic. When you get to work, start doing your job. Don't wait to be told to start. Learn to be pleasant - even when you don't feel that way.

3. Show initiative. Look for things to do when your work is done. Offer to help others or ask what you can do next.

4. Like yourself. Pat yourself on the back for the good things you do. Reward yourself for your good work by going out to dinner or just relaxing when you get off work.

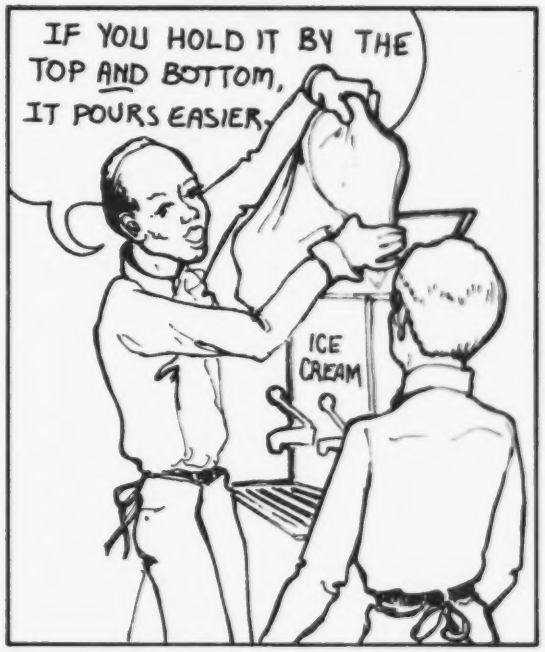
5. Like your co-workers. Smile and talk to them when you have time. Show them respect and congratulate them when they get a raise or do a good job.

6. Show that you have a sense of humor. A positive, cheerful outlook makes work more pleasant and good relations with co-workers easier. Take joking and teasing with good humor. Sometimes co-workers tease to start communication with you.

7. Expect to learn new tasks and ask how to do them if necessary. Be sure you are doing them right - ask a co-worker or your boss about the correct way to do the task and watch carefully.

8. Learn from your co-workers. If someone shows you a better way to do a task and your boss agrees, try the new way. There may be a time when you can show someone else a new way.

9. Accept constructive criticism. If you are told that you have done a job incorrectly, this does not mean that you are a bad person or that you are not liked. It does mean that there is a better or right way to do the job. If your boss tells you that you are doing a task wrong, listen carefully and try to improve your work.



10. Leave personal problems at home. If things are not going well for you, don't spend work time feeling sorry for yourself. This is not good for your attitude and others will not want to be around you.

DO ACTIVITY SHEET 1

Human Relations - Work Attitudes
Activity Sheet 1

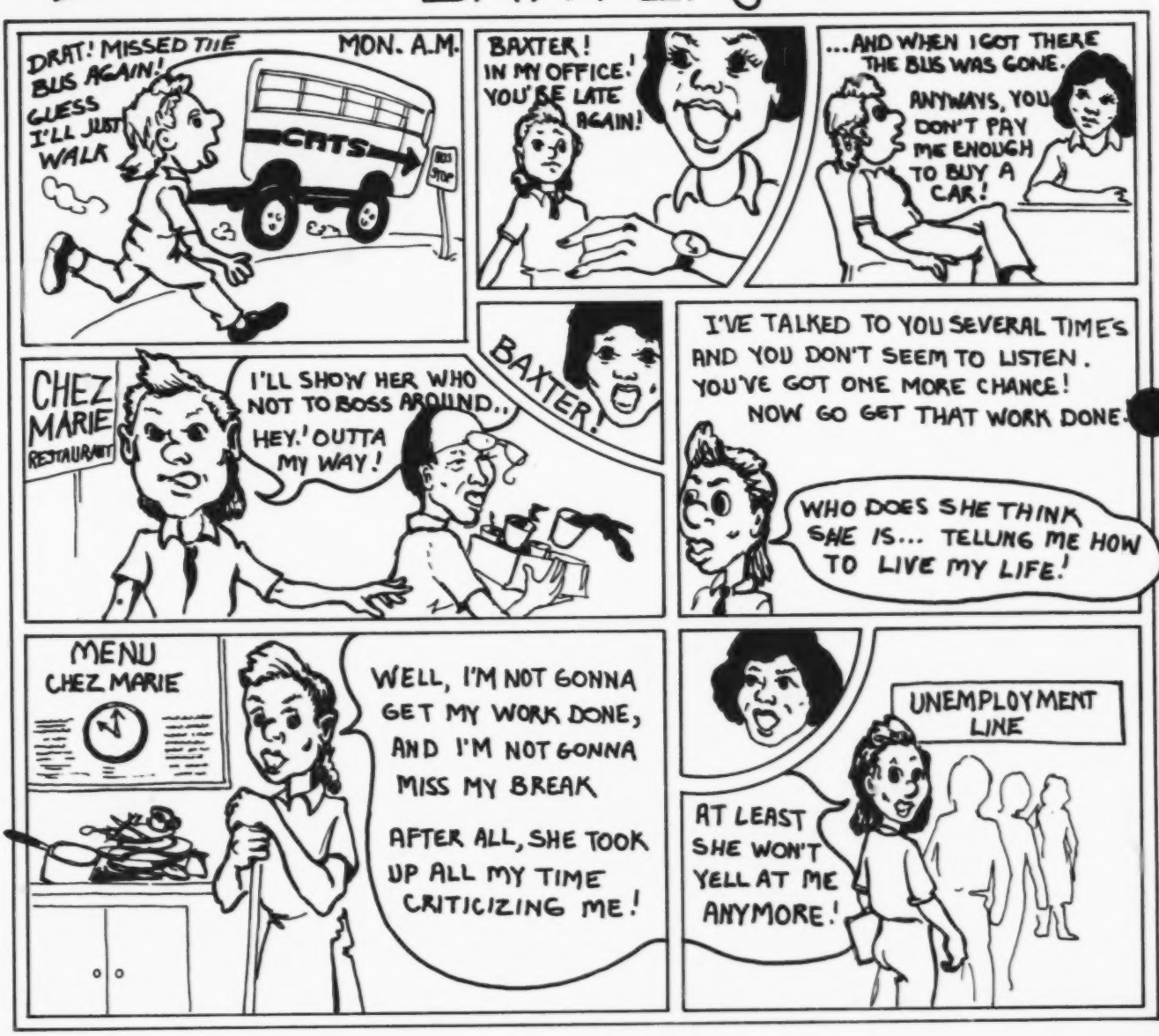
Directions: The following story shows a day on the job for "Bad Luck Baxter," who has many problems. Some of the problems are not Baxter's fault, some are a result of Baxter's bad attitudes. How many times do you see "Bad Luck Baxter" cause his own bad luck by his poor work attitudes?

Next you will find the story of "Big Break Baxter," who is having a day much like "Bad Luck Baxter's." But "Big Break" knows that a good worker tries to handle problems on the job with ability, flexibility, and good work attitudes.

If you were "Big Break Baxter," decide how you would make your own good luck and solve problems by displaying good work attitudes. Finish the story by filling in words that tell what you might say or do.

Misadventures in Employment!

BADLUCK BAXTER


DRAT! MISSED THE BUS AGAIN! GUESS I'LL JUST WALK
MON. A.M.
CATS
BUS STOP
BAXTER! IN MY OFFICE! YOU'RE LATE AGAIN!
...AND WHEN I GOT THERE THE BUS WAS GONE.
ANYWAYS, YOU DON'T PAY ME ENOUGH TO BUY A CAR!
CHEZ MARIE RESTAURANT
I'LL SHOW HER WHO NOT TO BOSS AROUND..
HEY! OUTTA MY WAY!
BAXTER!
I'VE TALKED TO YOU SEVERAL TIMES AND YOU DON'T SEEM TO LISTEN. YOU'VE GOT ONE MORE CHANCE! NOW GO GET THAT WORK DONE!
WHO DOES SHE THINK SHE IS... TELLING ME HOW TO LIVE MY LIFE!
MENU CHEZ MARIE
WELL, I'M NOT GONNA GET MY WORK DONE, AND I'M NOT GONNA MISS MY BREAK
AFTER ALL, SHE TOOK UP ALL MY TIME CRITICIZING ME!
UNEMPLOYMENT LINE
AT LEAST SHE WON'T YELL AT ME ANYMORE!

BIG BREAK

BAXTER

E. Guidelines for Good Communication

Communication on the job is one of the most important factors in keeping a job. Communication is the way a message or information is passed from one person to another. This includes speaking, listening, and understanding what is said. Your ability to maintain good relationships with others depends a great deal on your ability to communicate with them. Whether you are listening to instructions, asking a question, or sharing information with your boss, co-workers, or guests, you need good communication skills. Good communication skills are learned through practice.

1. Speak clearly. Do not speak too loudly or too softly. Make sure your voice is clear and steady.

2. Watch the person to whom you are speaking. You can tell from your listener's reactions whether your message is heard and understood. Eye contact is very important in communicating with others.

3. Listen to what is being said. Try to interpret what is being said. Don't assume you know what the other person is saying, but confirm it.
   Ask "Are you saying that..."

4. Say something positive. Try to talk about good points. If you are going to discuss a problem, try to point out something positive about the discussion before you have to say anything else.

5. Compromise. If you do not agree with another person, talk over your feelings and the feelings of the other person. Then try to meet the other person half-way.

6. Plan ahead. Know what you want to say before you start to talk. Practice what you will say.

7. Pick a good time to talk to the person about a problem. If you want to talk to your boss about a problem at work, make sure you select a slow time at work or even set up an appointment.

DO SKILL SHEET 3

Human Relations - Communication
Skill Sheet 3

Directions: Put an X beside the activities that show you have good working relationships with others.

_____ 1. I make sure my voice is clear and steady.

_____ 2. I listen to what the other person is saying.

_____ 3. I try to talk about good points.

_____ 4. I speak very, very softly.

_____ 5. I know what I want to say before I start to talk.

_____ 6. I usually assume I know what the other person is saying.

_____ 7. I practice what I will say.

_____ 8. I talk to others any time I feel like it.

_____ 9. I try to meet the other person half-way.

_____ 10. I watch the person to whom I am speaking.

_____ 11. I try to pick a good time to talk to another person about a problem.

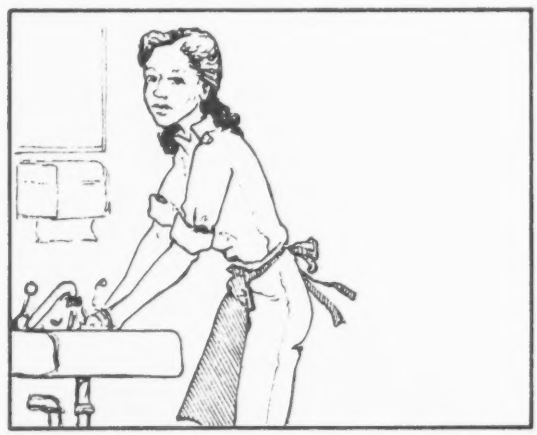
F. Guidelines for Good Personal Hygiene, Grooming, and Health

If you are clean, well-groomed, and healthy, you will stand a better chance of keeping your job than if you are not. Employers find it difficult to have confidence in workers who are not concerned about their personal appearance and health. Good personal hygiene reflects a positive attitude and a sense of well-being and self-pride.

1. Practice good hygiene by keeping skin, hair, and teeth clean.

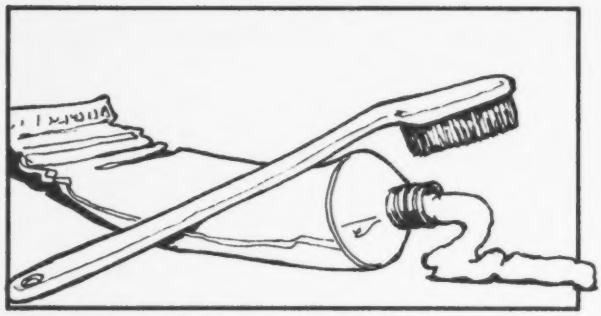
2. Bathe daily. Co-workers and customers will not want to be near you if you have body odor. You can be fairly sure you won't have body odor if you bathe or shower daily and use a deodorant.

3. Keep your hair clean. Be sure to carry a comb with you and comb your hair to keep it neat. Remember to comb your hair in the restroom.



4. Wash your hands often. Almost everything we touch has some dirt and germs on it. Wash your hands between tasks that you do at work. Include fingernails as well as your wrists. Wash your hands after visiting the restroom and always before handling food.

5. Brush your teeth at least once a day. This helps to keep teeth and gums healthy and to prevent bad breath. Mouthwash may also be used to guard against breath odor.



6. Wear neat, clean, appropriate clothing for the work you do. Some food service places have a uniform for work. Ask about this when applying.

7. Be sure clothes are suitable for the job. If you are unsure about what to wear, look at what others wear or ask your co-workers.

8. Find out if your workplace has a dress code. If there are rules for dress, be sure to follow them.

9. Wear clothes that fit well and look good on you. Stay away from fads and extreme clothing styles.

10. Take care of your clothes. Your clothes should be clean and in good repair. They should not be stained or wrinkled. If your clothes are neat, clean, and well-matched, you will be well dressed.

11. Follow good health practices:
    - Eat a balanced diet
    - Get enough sleep
    - Exercise regularly
    - Sit, stand, and walk with good posture
    - Have regular physical and dental examinations
    - Participate in recreational activities
    - Avoid stress and worry
    - Develop positive thoughts and attitudes

DO SKILL SHEET 4
DO ACTIVITY SHEET 2

Human Relations
Skill Sheet 4

Directions: These two workers want to improve their personal appearance and health. In the spaces provided, list some good hygiene, grooming, and health habits that these workers can practice to improve their appearance and health on the job.

1. _____
2. _____
3. _____
4. _____

Human Relations
Activity Sheet 2

For each area mentioned in this unit, role playing will greatly enhance learning, since it gives students a chance to actually practice handling difficult situations in an appropriate manner.

1. First, ask students about situations in which they had difficulties (for example, when a grouchy customer came in to order and complained about everything).

2. Write the problems on a page and write the appropriate job title next to the problem.

3. Next, cut the list of problems into strips of paper with a problem on each strip. Fold the strips and place them in a container.

4. Ask students in small groups to pull out a problem and role play that situation.

5. Let several students role play the situation to see various ways to handle the problem.

   NOTE: Make sure the person who actually experienced the problem on the job gets to role play it so an appropriate solution can be practiced.

Human Relations
Unit Review

Directions: Draw a circle around the words that correctly complete each sentence.

1. Show respect for supervisors by (criticizing, supporting) their decisions.
2. Show positive support of co-workers by (complimenting, laughing at) them.
3. Help others feel comfortable by (smiling and being polite, sharing your problems).
4. If your boss has to correct you, think it over (frequently, constructively).

Directions: Circle the correct answer(s) for each question. A question may have more than one correct answer.

5. Which of the following is true of communication?
   a. Communication is a two-way street between the listener and the speaker
   b. Communication means speaking to someone
   c. Communication means listening to someone who is talking
   d. Communication means understanding what someone is saying

6. If you want to communicate with someone about a problem, you should:
   a. Blame them for what went wrong
   b. Try to compromise if you don't agree
   c. Try to say something positive
   d. Pick a good time to talk

7. If you want to say something to someone, but get nervous when you talk, you might:
   a. Just walk in and try it anyway
   b. Plan ahead for what you want to say and practice it
   c. Cry about it so that person will be nice to you
   d. Fight about it so the person will know you are serious

Directions: Here are some statements overheard on the job. Circle the statement in each that shows good work attitudes.

8. a. "What do you mean, I'm not doing the job right! You can't tell me how to do my job! Now, leave me alone!"
   b. "Thanks for telling me about a quicker way to do this. Would you show me how to do that again?"

9. a. "I'm in a bad mood today. I don't see why I should have to smile and act nice to everybody."
   b. "I started off the day in a bad mood. But while I'm at work I'm going to smile and try to be pleasant with my co-workers and customers."

10. a. "I've finished my work early. I see that Joe is still really busy. I'll ask him if I can help."
    b. "I've finished my work early. I'm glad I wasn't as busy as Joe. He's still working, but now I can rest."

11. a. "I really don't care how this stuff turns out. If the customers don't like it, they don't have to buy it!"
    b. "I take pride in my work. My work is important and I am going to do it right."

Directions: List three personal hygiene or grooming habits you should have in order to be clean and neat on the job.

12. _____
13. _____
14. _____

Directions: Put an X beside each statement that describes a good health practice.

____ 15. Go to the doctor only when you are really sick

____ 16. Eat regular, well-balanced meals.

____ 17. Develop positive thoughts and attitudes.

____ 18. Worry about your job.

____ 19. Exercise regularly and get enough sleep.

____ 20. Wash and comb your hair weekly.

Human Relations
Performance Checklist

Student _____ has successfully performed the following steps of procedure.

	Yes	No	Comments
Maintaining Good Working Relationships			
1. Showed courteous and respectful manner towards others			
2. Helped co-workers when necessary			
3. Provided encouragement to others			
4. Complimented co-workers when appropriate			
5. Responded constructively to problems and suggestions for improvement			
Displaying Dependability for Work			
1. Came to work on time			
2. Did work as agreed to/stated			
3. Used time well at work			
4. Took care of personal matters on own time			
5. Used sick leave appropriately			
6. Did a reasonable amount of work			
7. Worked consistently			
8. Accepted challenging or difficult tasks			
9. Demonstrated uderstooding of directions by repeating them and/or asking questions			
10. Followed directions			
11. Organized work and planned time			
12. Kept work area neat and organized			
Demonstrating a Good Work Attitude			
1. Showed pride in work			
2. Showed positive approach to work			
3. Showed initiative (when work was completed, appropriately looked for other work, kept busy)			
4. Rewarded self appropriately			
5. Demonstrated positive manner toward co-workers			
6. Showed sense of humor/ability to laugh			
7. Tried new tasks; asked questions and observed			
8. Asked for and accepted help from co-workers			
9. Accepted constructive criticism			
10. Did not let personal problems interfere with work			
Good Communication			
1. Spoke clearly			
2. Made eye contact			
3. Demonstrated good listening skills by responding appropriately			
4. Made positive statements			
5. Compromised when appropriate			
6. Planned ahead about what to say			
7. Picked appropriate time for discussing problems			
Displaying Good Personal Hygiene, Grooming and Health			
1. Kept body clean and neatly groomed			
2. Kept hair clean and neatly groomed			
3. Washed hands appropriately			
4. Brushed teeth daily			
5. Wore clean and appropriate clothing			
6. Followed good health practices			

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Satisfactory - Should Move On ☐
Repeat This Unit ☐

Student's Signature/Date _____ **Instructor's Signature/Date** _____

SN-91-S

SUPPLEMENTARY UNITS

Restaurant/Institutional Food Service

Sanitation

Instructional Materials Laboratory
10 Industrial Education Building
University of Missouri-Columbia
314/882-2883

Sanitation
Introduction

Sanitation is the science of cleanliness. It involves all of the procedures necessary to keep personnel, food, and food preparation areas clean. Factors which lead to many food borne illnesses include: poor personal hygiene, infected food handlers, unsanitary tools and equipment, improper food or chemical storage, improper food handling, unsafe food holding temperatures, and pests. Sanitation includes using correct personal habits and work procedures to prevent such conditions.

Unit Objectives

After completion of this unit, you will be able to recognize and demonstrate good sanitation practices in preparing and serving food.

Specific Objectives

After completion of this unit, you should be able to specifically:

1. Identify and practice sanitary food handling techniques.
2. Demonstrate personal hygiene.
3. Identify and practice safe food storage techniques.
4. Sanitize the physical plant.
5. Comply with local health codes.

Are You Ready?

Check the statement which is true for you.

☐ I want to study the information in this unit before doing the Performance Checklist

SEE YOUR INSTRUCTOR

☐ I can do the tasks and I am ready to do the Performance Checklist.

TURN THE PAGE AND BEGIN

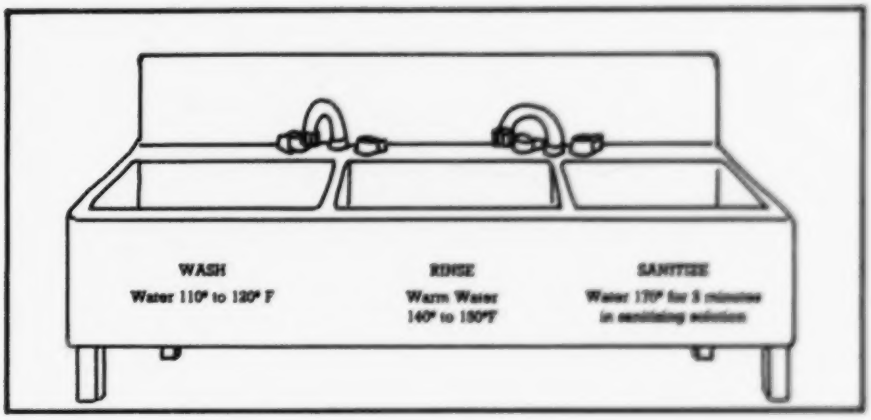
A. Terms and Equipment for Sanitation

Terms

1. Bacteria - tiny plants, some of which can produce poisonous toxins in food
2. Condiments - sauces and seasonings needed at table for customer use (for example, mustard, steak sauce, butter, and salt)
3. Contamination - harmful materials, such as bacteria, which taint food and make it unfit for use
4. Cover - a complete place setting for one person
5. Cross Contamination - spreading germs from one food to another by not sanitizing surfaces
6. Danger Zone - temperatures between 40° F. and 140° F where bacteria in food develop the fastest
7. F.I.F.O. - First In/First Out, method of stock rotation that uses oldest stock on shelf first by putting newer stock behind older stock
8. Food Borne Illness - illness caused by harmful bacteria in food, such as staph, salmonella, botulinum, and perfringens
9. Food Poisoning - an illness caused by bacterial toxins in food
10. Holding - keeping food at safe temperatures while it is waiting to be served
11. Hygiene - actions, such as bathing and brushing your teeth, that contribute to cleanliness and good health
12. Non-perishable - foods that will not spoil readily, such as canned goods, and packaged foods
13. Perishable Foods - foods such as raw meat and milk that must be refrigerated to prevent spoiling
14. Pesticides - chemicals used to guard against rodents and insects
15. Physical Plant - interior of a food operation including equipment surfaces, counters, furniture, floors, windows, doors, blinds, and other furnishings
16. Sanitation - practices that help keep personnel, food, and food service areas clean
17. Sanitizing - killing germs by using a chemical solution such as bleach water to clean
18. Toxic - poisonous, something which causes illness or death when eaten or drank
19. Toxins - poisons created by harmful bacteria as they grow

Equipment

Three-sink Unit
Pot and Pan Sink



B. Procedures for Identifying and Practicing Sanitary Food Handling Techniques

It is impossible to get rid of all of the harmful bacteria in food service operations, but it is possible to slow down their growth. By knowing the correct ways to store, prepare, and serve food, you can keep yourself and your customers safe.

Many bacteria grow best in foods that contain both fat and protein such as milk, eggs, meats, and fish. There are four kinds of bacteria which are especially dangerous in food service. These bacteria can be seen only with a microscope. You often cannot tell by looking at food if it is safe. Therefore, controlling the temperature of food is very important. Temperatures above 140°F will kill most bacteria.

Most raw foods are contaminated by Salmonella. Salmonella bacteria live in the intestinal tracts of animals and humans and can only be destroyed by thorough cooking. That is why cooking is so important.

The most common food borne illness is caused by the staphylococcus bacteria (staph). These bacteria live on your skin, mouth, and throat as well as in pimples and sores. Staphylococci can be spread by coughing, sneezing, and unwashed hands. Staph bacteria are killed at temperatures above 190° F, but the toxins produced by staphylococcus bacteria cannot be destroyed.

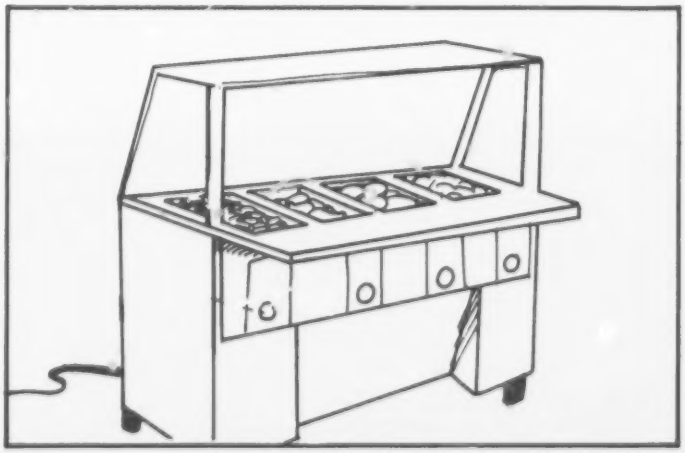
Clostridium perfringens bacteria grow mainly on meats and gravies that are not kept cold enough or hot enough.

Another kind of bacteria, clostridium botulinum, grows only in places without air. These bacteria cause botulism, a very dangerous type of food poisoning. They grow readily in canned foods that have not been heated enough during the canning process. One taste of food that is contaminated with these toxins can be fatal. Temperatures above 260° F will destroy the botulism toxins but will not kill the bacteria. (This is just the opposite of the staph bacteria.)

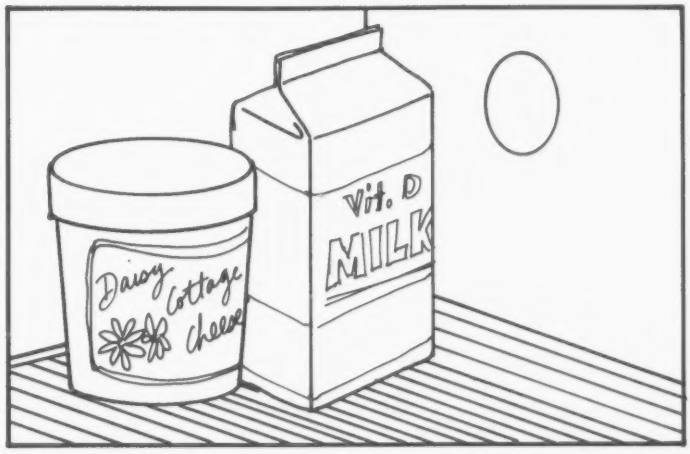
1. Control the temperature of food carefully.

   • Keep hot foods hot! (above 140° F)
   • Keep cold foods cold! (below 40° F)

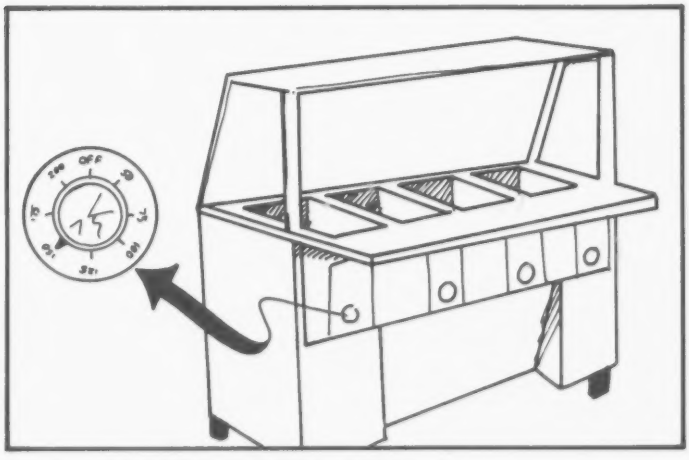
CAUTION: Check refrigerator and freezer temperatures daily.



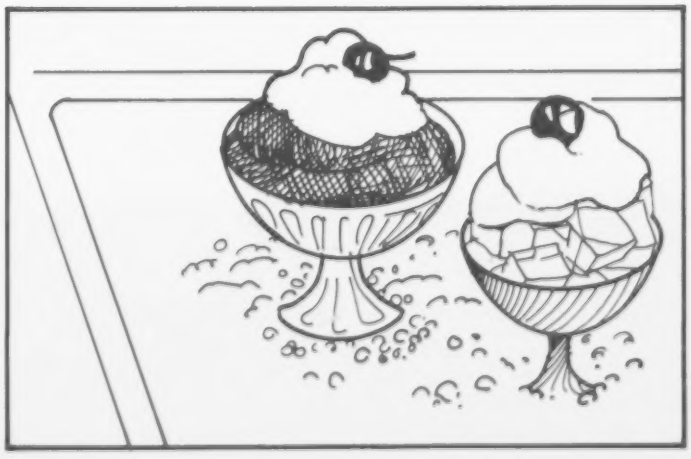
- Keep all foods out of the danger zone from 40°F to 140°F. (Bacteria grow faster between these temperatures.)



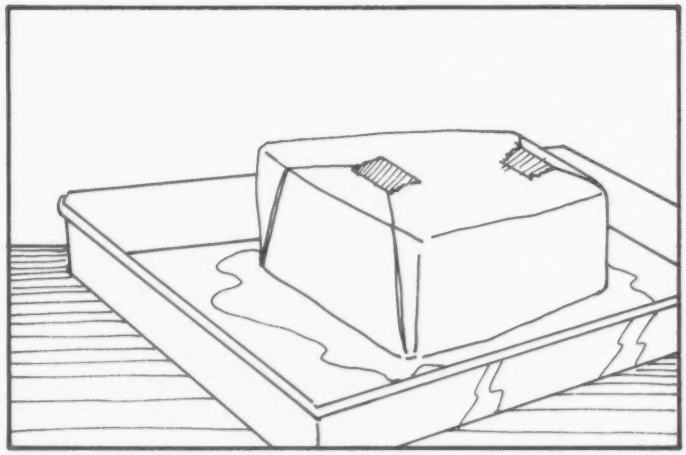
- Keep hot food in a steam table at a temperature of 140°F or higher.



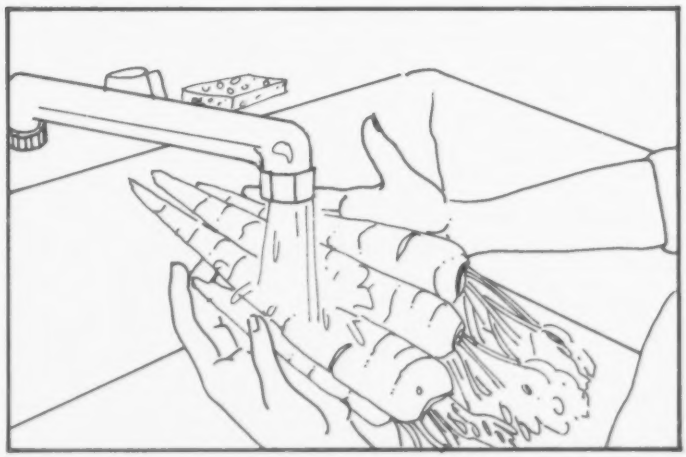
- Keep cold foods under refrigeration or on ice to keep their temperatures below 40°F while they are waiting to be served. (This is called holding.)



- Do not refreeze foods. As foods thaw, bacteria start to grow again. If the food is refrozen, a higher bacteria count will be in the food.

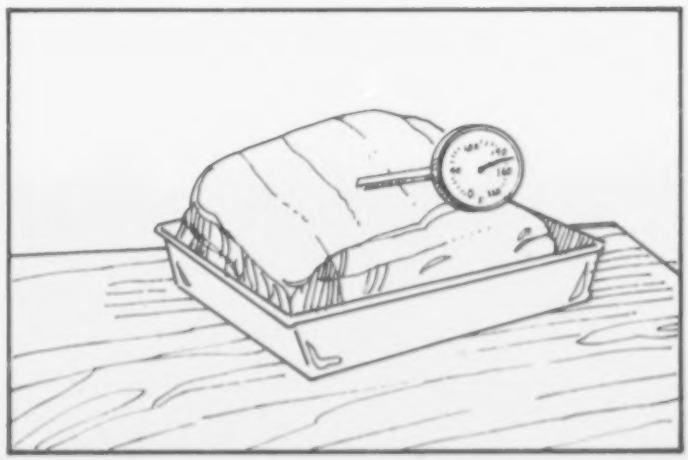


2. Prepare foods safely.
   - Rinse raw fruits and vegetables before you use them. This washes away harmful bacteria and chemicals such as pesticides which may have been sprayed on fruits and vegetables while they were growing.

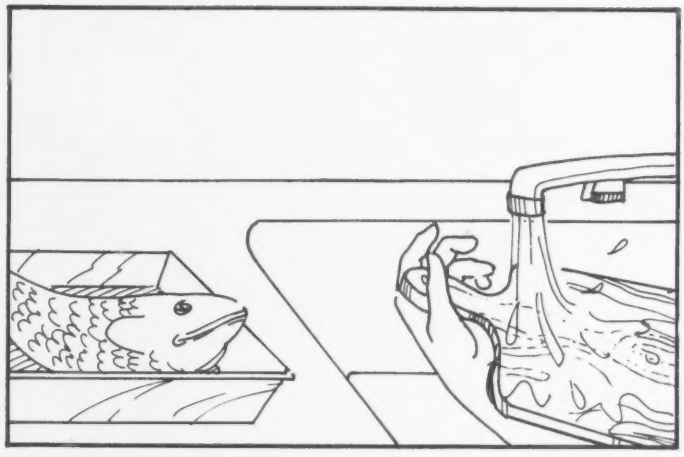


- Use a meat thermometer to make sure that the center of the meat reaches 140°-160°F to kill most bacteria.

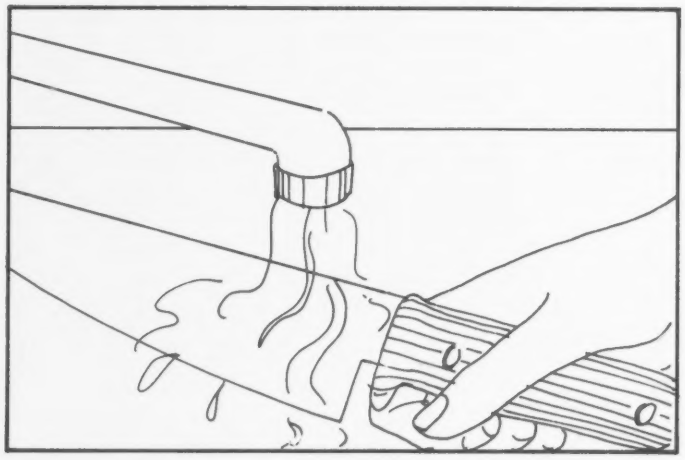
NOTE: Be sure the thermometer is in the middle of the meat and is not next to a bone.



- Prevent cross contamination. Every time you finish working with raw food, wash everything that the food has touched with detergent. (This includes counters, knives, etc) This will keep the bacteria on the raw food from being transferred to foods that are already cooked.

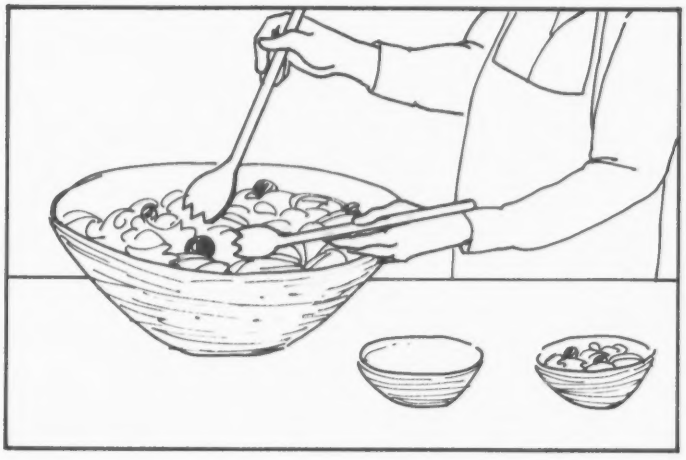


- Wash your hands and utensils when you finish working with one type of food.



- Sanitize all surfaces on a regular schedule using bleach water or commercia sanitizer.

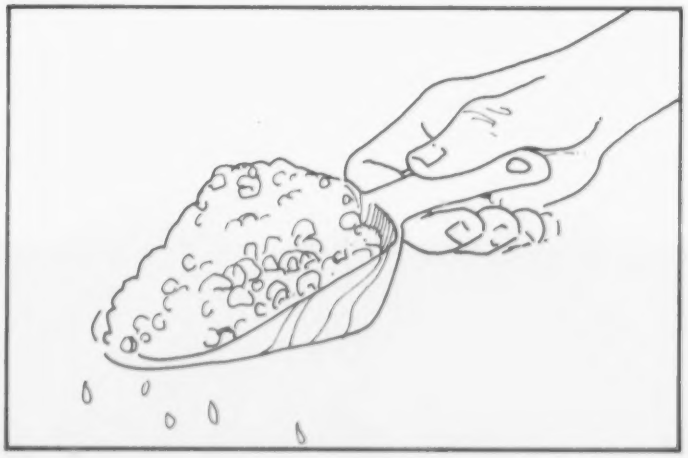
3. Serve food safely. Avoid touching food with your hands.
   - Use tongs or spoons to serve food.



- Plastic gloves are not always required but they are often used in institutions.

- Use a scoop for ice instead of a glass.
  CAUTION: A glass could break in your hand and leave glass in the ice.

- Do not use anything that has dropped on the floor.



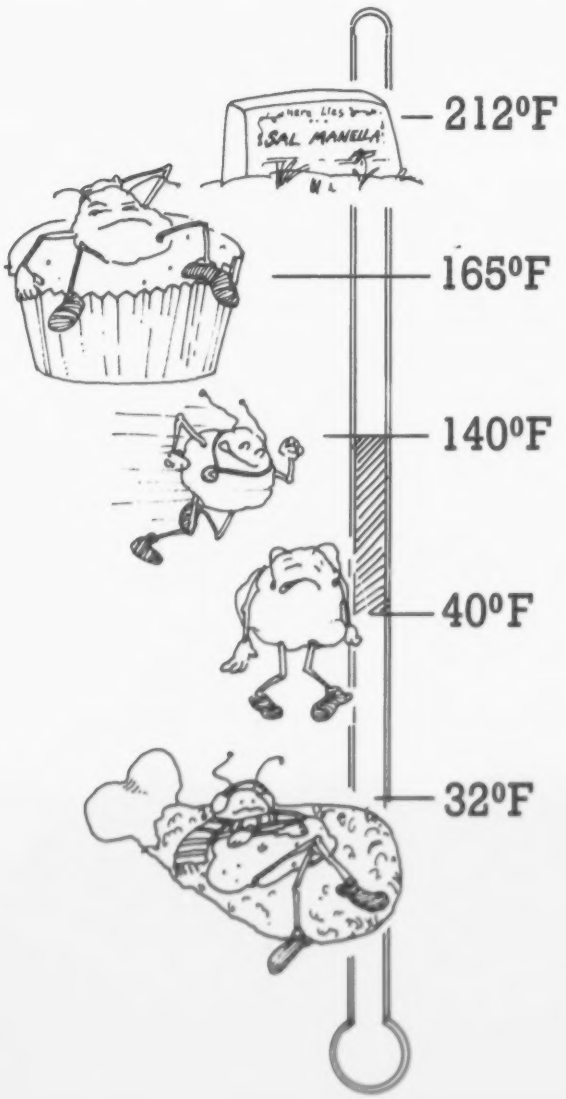
DO SKILL SHEET 1

Sanitation
Skill Sheet 1

Directions: Study the temperature chart below and how these temperatures affect foods.

Tell if these temperatures are out of the danger zone for foods. In the blank beside each number, write S if they are safe and U if they are unsafe.

_____	1. 101°F	_____	4. 110°F	_____	7. 98°F
_____	2. 210°F	_____	5. 145°F	_____	8. 49°F
_____	3. 36°F	_____	6. 71°F	_____	9. 13°F



COOKING ZONE
Destroys most bacteria in a few minutes, provided the entire mass reaches the cooking temperature

WARMING ZONE
Prevents multiplication of bacteria but allows them to survive for hours

DANGER ZONE
Keep food out of this temperature range except for short periods of time

COOLING ZONE
Safe for relatively short periods of time - prevents multiplication of bacteria

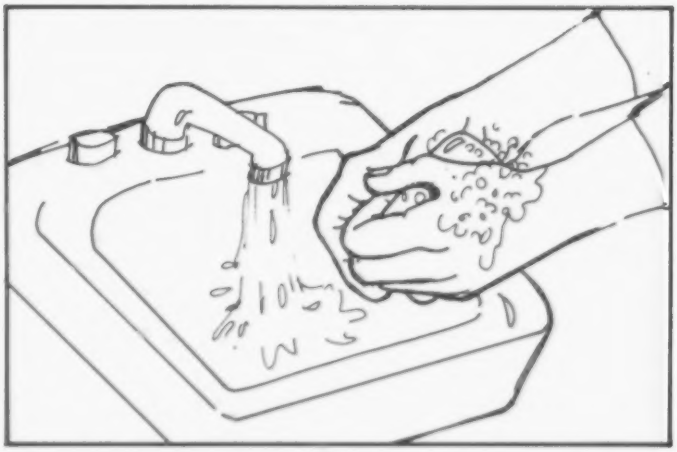
SUB-FREEZING ZONE
Prevents multiplication of bacteria but most bacteria will survive freezing

C. Procedure for Using Personal Hygiene

Good personal hygiene techniques should carry over onto your job. Good personal hygiene prevents carrying and spreading germs and bacteria.

1. Use good personal hygiene on the job.
   - Wear fresh uniforms that are clean, pressed, and in good repair.
   - Wear hair nets or restraints

   - Don't smoke in food preparation areas.

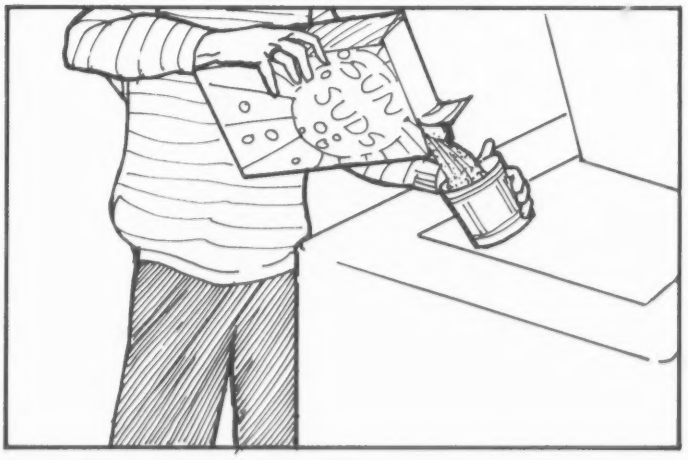


   - Wash your hands often, especially after touching your face, hair, body, or raw food, and always after using the restroom.

2. Practice good sanitation habits at home.
   - Bathe or shower daily.
   - Shampoo frequently.
   - Use deodorants daily.

- Keep nails clean and trimmed.
- Shave as often as needed.
- Brush and floss teeth.

- Wear clean undergarments, hoisery, and socks.
- Make sure your clothes are clean.



- Have a regular physical check-up.

- Get enough rest and sleep to feel refreshed.

3. Report ALL skin infections to your supervisor. (This includes cuts, sores, rashes, pimples, and boils.)

4. Report ALL body infections to your supervisor. (This includes colds, fevers, and sore throats.)

5. Avoid all of these personal habits!
   - Sneezing and coughing around food. (Use a handkerchief.)
   - Scratching head
   - Picking nose
   - Wiping mouth with fingers

Other personal habits to avoid:

- Smoking in nondesignated areas
- Fixing hair with hands

- Biting fingernails

- Eating in nondesignated areas
- Nibbling on duty

DO SKILL SHEET 2

Sanitation
Skill Sheet 2

Directions: Rate yourself on each of the following questions.

Use this scale: 6: ALWAYS
4: USUALLY
2: OCCASIONALLY
0: NEVER

When a question refers specifically to the opposite sex, place a N/A (not applicable) in the blank and score it as 6.

When you have completed the evaluation, total your score and compare it to the rating scale at the end.

You will not turn in this assignment - it is for your personal use.

QUESTIONS	RATING
1. Do you take a shower or bath daily?	_____
2. Do you use an effective deodorant or antiperspirant daily?	_____
3. Do you shave as often as needed?	_____
4. Do you check your fingernails daily and repair or clean them as often as needed?	_____
5. Do you shampoo your hair frequently?	_____
6. Do you brush your teeth daily?	_____
7. Do you get enough sleep and rest so that you feel refreshed?	_____
8. Do you put on clean hosiery or socks and undergarments daily?	_____
9. Are your uniforms clear and pressed?	_____
10. Do you check garments for split seams, ripped hems, or loose buttons before wearing them?	_____
TOTAL:	_____

RATING:

60-55: Great, you take pride in your appearance.

54-50: Good, you'd probably pass inspection.

49-45: Fair, you're not really trying.

45 or less: Poor, your best friend won't even tell you!

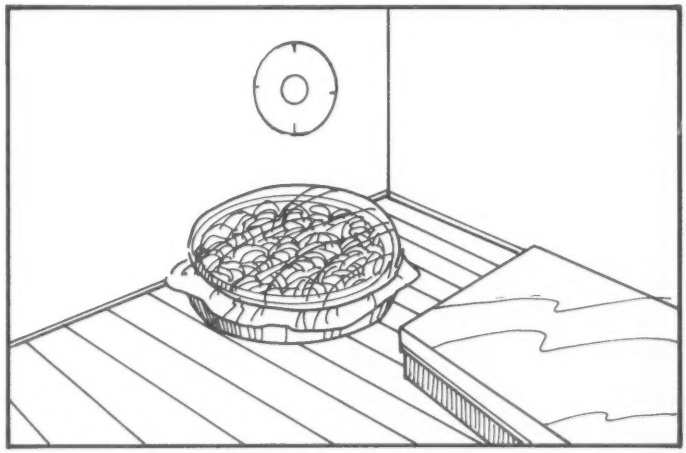
D. Procedure for Storing Food Safely

There are two basic ways to store food. Perishable foods belong in a refrigerator or freezer. Such foods include milk, eggs, meat, seafood, and poultry. Non-perishable foods (foods that are canned or packaged so that they will not spoil readily) are stored in dry storage areas. Examples of non-perishable foods include bread and beans.

Guidelines for Storing Foods in Refrigerator and/or Freezer

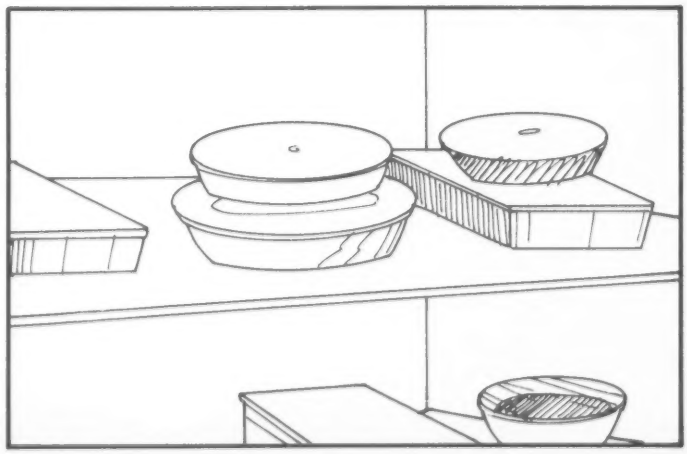
1. Cover all foods.

2. Set the temperature adjustment on your refrigerator so that food is kept between 40⁰ and 32⁰F. Freezer temperatures should be set at 0⁰ or below.



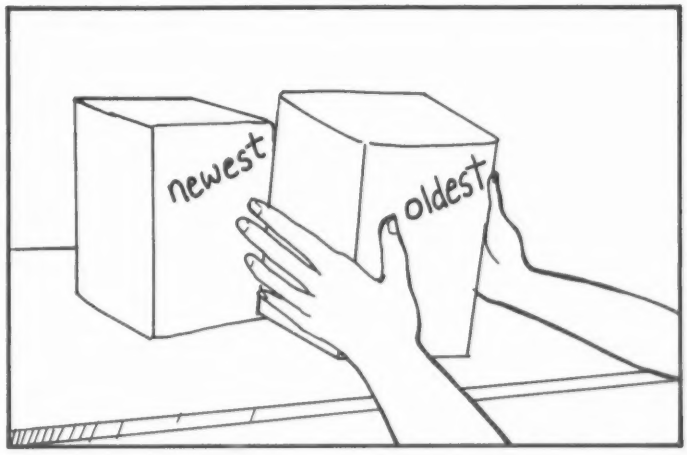
3. Store foods in shallow containers so that there is better control of cooling and heating.

4. Don't refreeze food because this allows more time for bacteria to grow when thawing takes place.

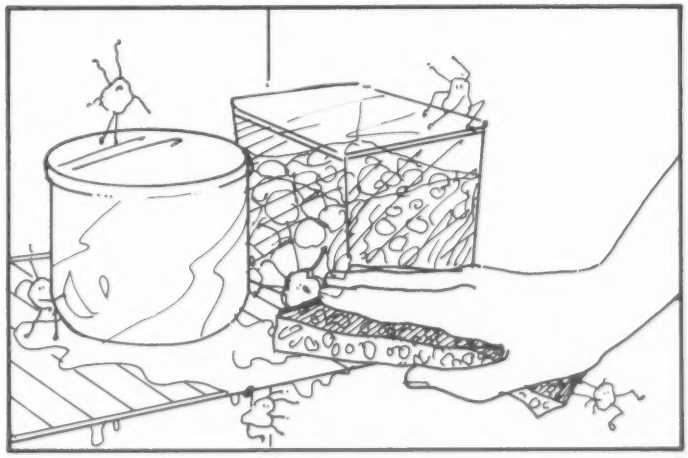


5. Use first in, first out rule (FIFO). New foods should be put in the back and the older foods in the front should be used first.

   NOTE: Label and date all items placed in storage.

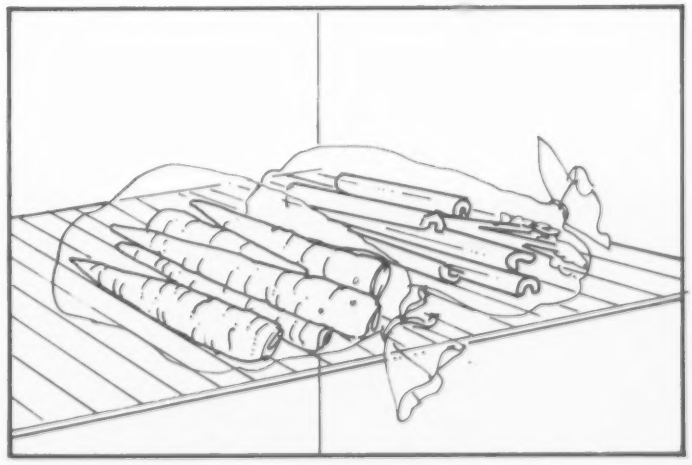


6. Keep refrigerators clean and dry. Cool temperatures slow down the growth of bacteria but a refrigerator with spills and forgotten leftovers gives bacteria a chance to grow.

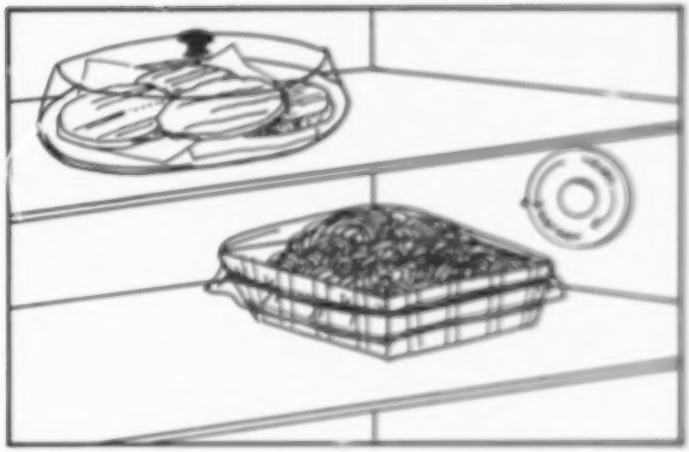


7. Cover food on refrigerator shelves.

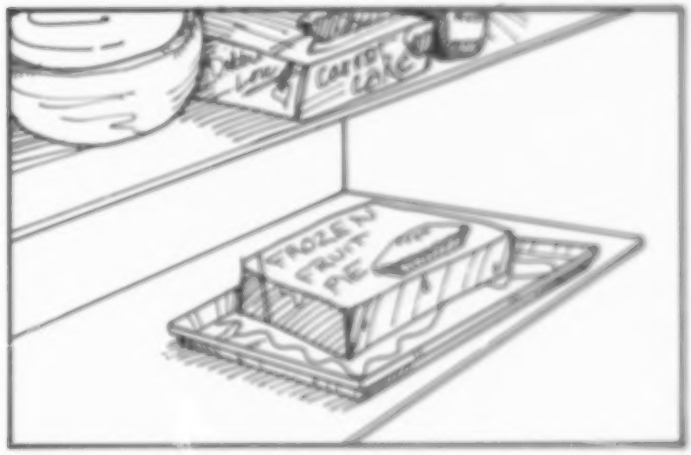
8. Store raw foods carefully.
   - Do not let raw foods directly touch shelves or walls of refrigerator.



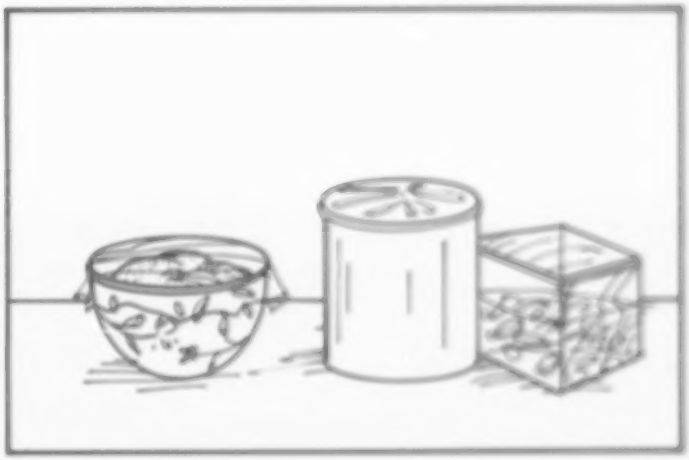
- Raw foods should not come in contact with prepared foods.



- Raw or thawing foods should be kept on lower shelves in case of dripping



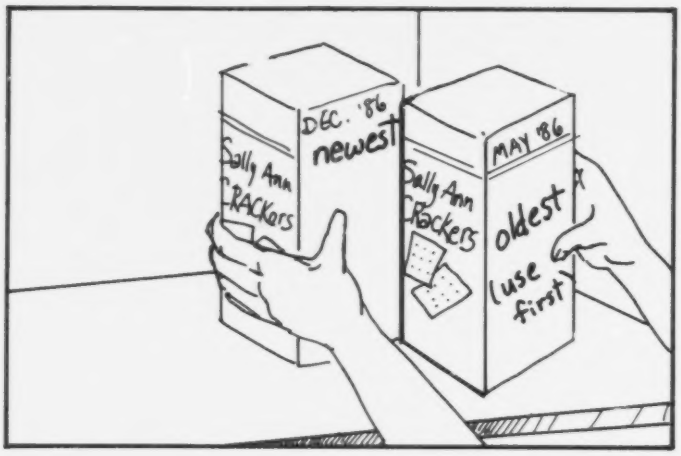
9. Cool prepared foods quickly and store them in medium sized containers. (Food in the middle of a large bowl may remain at temperatures in the danger zone for a long time.)



Guidelines for Storing Non-Perishable Items

1. Use the first in, first out (FIFO) method of stocking shelves. (Put new foods behind older ones.)

   NOTE: Be sure all items are labeled and dated.



2. Keep storage areas free from dust. Clean tops of cans, as well as the shelves and floors.

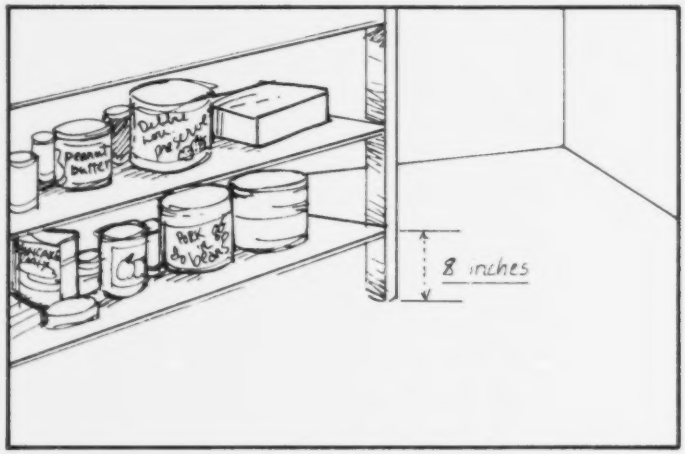
3. Check dates before you use foods. Discard old canned goods.

4. Notify supervisor of any dented, bulging, or rusted cans.

   CAUTION: If can is bulging, it probably contains dangerous toxins.

5. If wrapping has been torn open, ripped, or appears to have been tampered with, don't use the food.

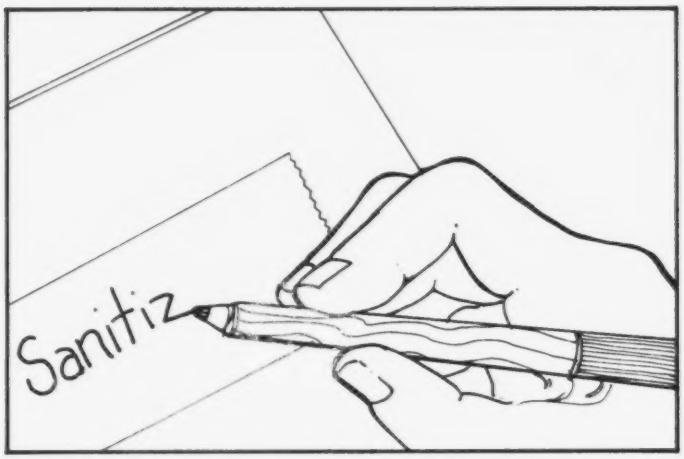
6. Never store food on floors. Store it on shelves which are at least 8 inches off of the floor.



7. Cleaning compounds and chemicals should be stored by themselves away from food products.

8. If there is ever a question about whether a foodstuff is good or not, consult with your food service supervisor.

9. Always label containers carefully.



DO SKILL SHEETS 3 AND 4

Sanitation
Skill Sheet 3

Directions: Visit a food service operation and complete the following chart about food handling and storage. Discuss methods of food handling and storage with your instructor.

	YES	NO
1. Were foods in the danger zone no longer than necessary?		
2. Were hot foods placed in shallow containers to cool?		
3. Was food stored on the floor?		
4. Were storeroom floors clean and dry?		
5. Was the FIFO policy being used?		
6. Were there signs of rodents or insects in storeroom?		
7. Was food covered and being stored in refrigerator?		
8. Were cleaning supplies stored separately from food stuffs?		
9. Were all cleaning supplies labeled?		
10. Were all cleaning supplies tightly sealed?		
11. Were all raw fruits and vegetables being washed before use?		

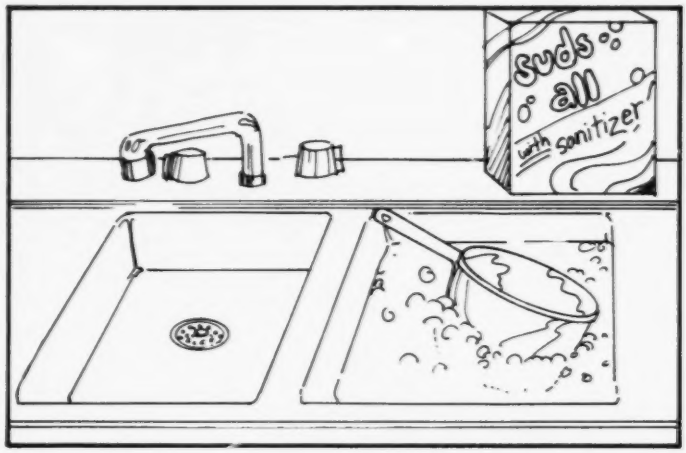
Sanitation
Skill Sheet 4

Directions: Circle at least ten (10) sanitation violations in the picture below.

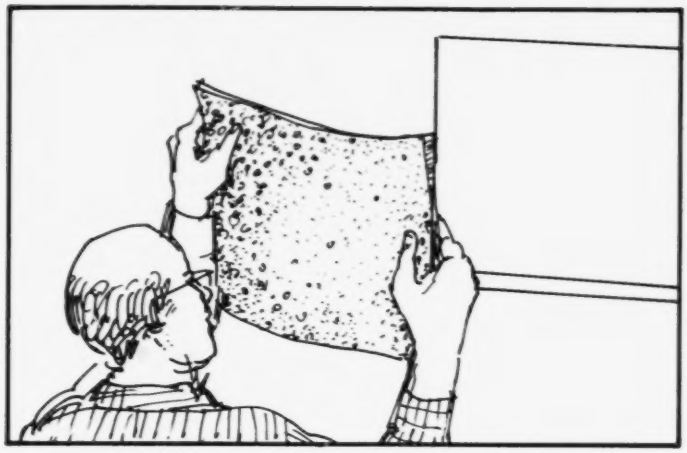
E. Procedures for Sanitizing Physical Plants

Proper sanitizing or cleaning is an important aspect of the overall sanitation of a food service operation. Cleaning should involve the use of a sanitizer, which is usually a chemical solution containing iodine or chlorine bleach.

1. Clean and sanitize dishes.
   - When washing dishes, silverware, pots, and pans by hand, use a sanitizer in the final rinse water, or use a detergent that includes a sanitizer.
   - The wash water should be at least 110° F. The first rinse should be 140°-150° F. The final rinse water should be 170° F.
   - Check dish washing machine temperature carefully. Final rinse in dish washing machine should be 190° F.
   - Let dishes air-dry.
   - Use a sanitizer to clean counter tops, cutting boards, utensils, equipment, preparation surfaces, serving surfaces, and storage areas.
   - Follow storage procedures at your food service operation.
   - Do not reuse any silverware or dinnerware which has been placed on a table where guests have been seated.

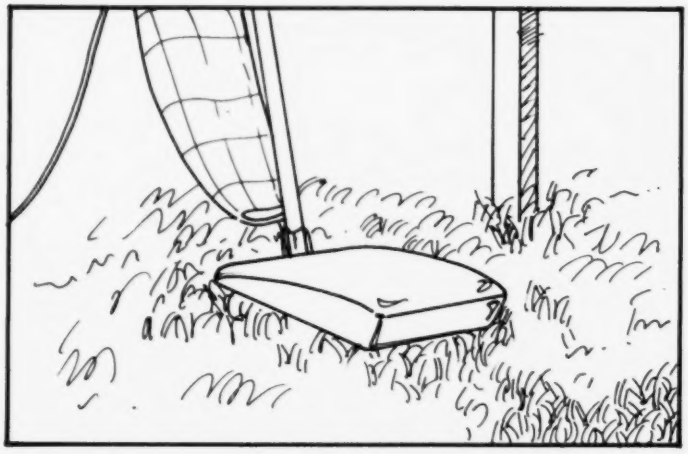


2. Clean all food service areas.
   - Keep air conditioning filters clean to prevent pests from being attracted to them.

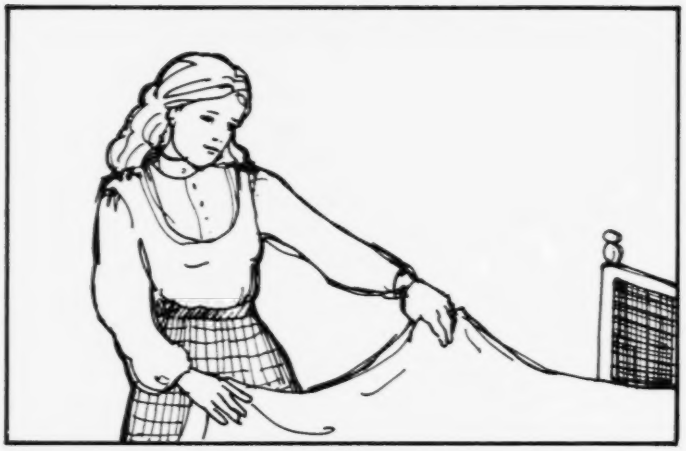


   - Clean drapes and curtains frequently to remove dust.
   - Wash windows to prevent greasy build-up

   - Sweep and shampoo carpets frequently.



- Change soiled tablecloths and/or placemats.
- Sanitize tables.
- Replace and cover condiments.



- Present clean menus to guests

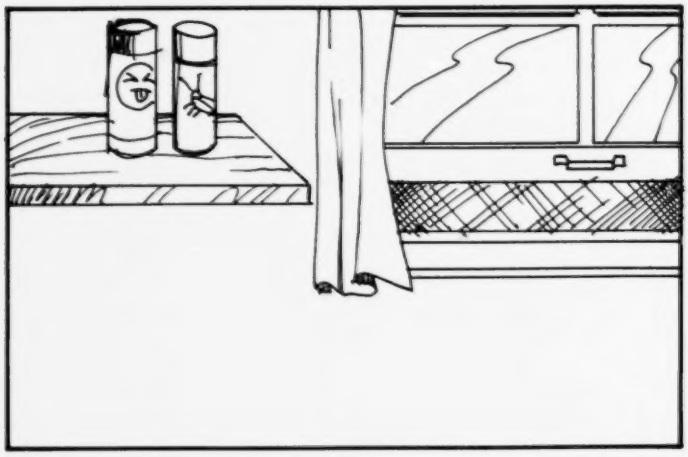
3. Control pests.
   - Remove spoiled fruits and vegetables from the kitchen.

Control Pests

- Remove standing water from floors and table tops.

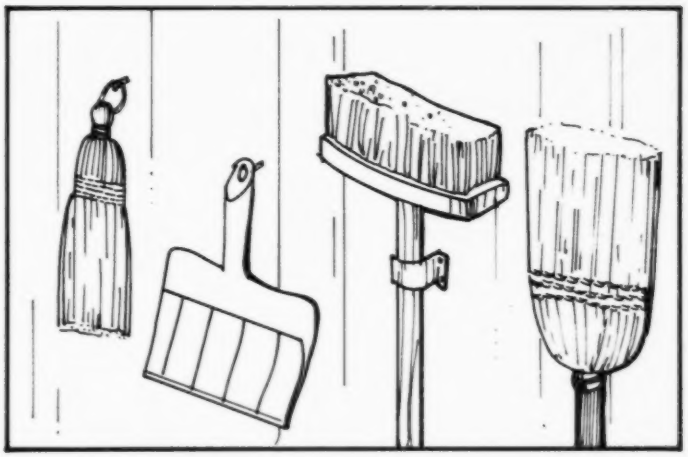
- Clean drains daily.
- Keep lids on garbage containers.

- Keep outside doors and windows closed and screened.
- Store all pesticides in their original labeled containers away from foods

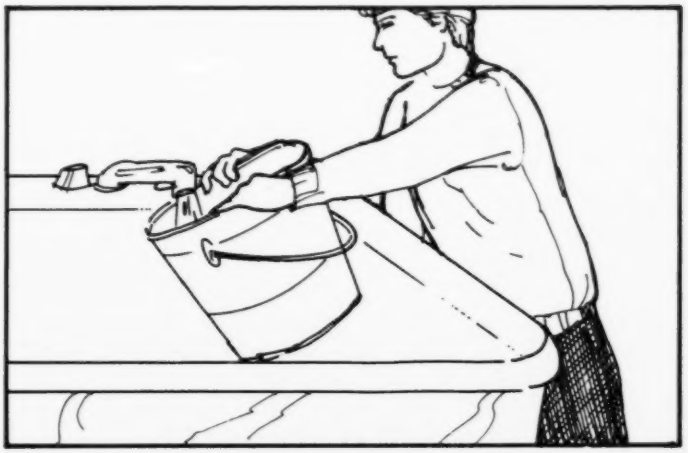


4. Store cleaning supplies and equipment in their proper places.
   - Keep housekeeping supplies away from food.

- Store floor brushes on holders or racks. (Use them only on dry surfaces.)



- Empty and rinse all buckets, pails, and wringers after each use.

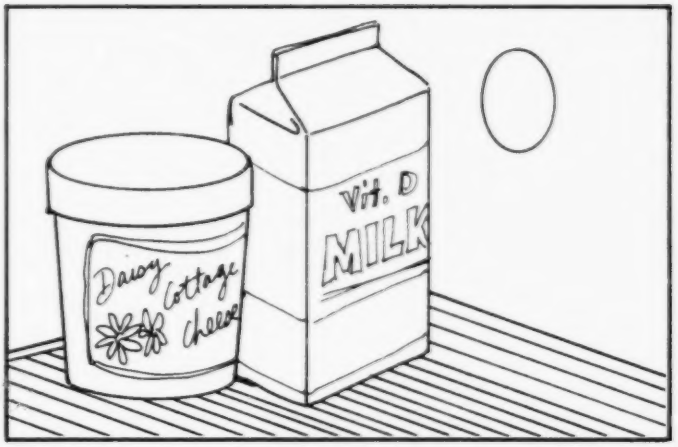


F. Guidelines for Complying with Local Health Codes

Local health codes are rules regarding the sanitation of food service establishments. In an official inspection, any item which fails to meet local sanitation requirements must be corrected or the business can be closed until corrections are made. Food service workers should follow the guidelines in order to help their food service business comply with local health codes. Guidelines vary from area to area but a sample list of local health codes are given here.

SOURCES OF FOOD:

- Is food wholesome with no spoilage?
- Is food in original containers with proper labels?



FOOD PROTECTION:

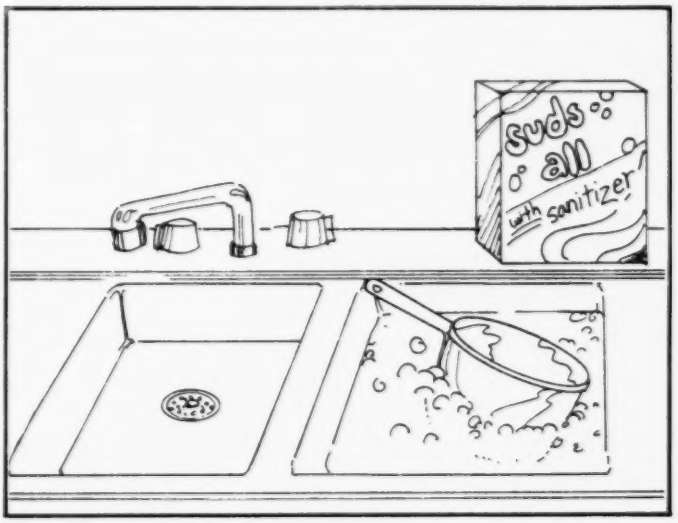
- Does potentially hazardous food meet temperature requirements during preparation, storage, and services?
- Is food properly thawed?

PERSONNEL:

- Are workers free from infection?
- Are their hands clean?
- Are clean clothes and hair restraints worn?

EQUIPMENT AND UTENSILS:

- Are work surfaces clean?
- Is equipment washed after use?
- Is equipment stored properly?
- Is the wash and rinse water clean and at the proper temperature?
- Are all of the surfaces of equipment and utensils which contact the food clean?
- Are single service articles discarded instead of being reused?



WATER SUPPLY AND SEWAGE DISPOSAL:

- Is the water source safe with hot and cold water under pressure?
- Is the sewage system working properly?

PLUMBING:

- Do the sink drains work freely?
- Do the floor drains work freely?

TOILET AND HANDWASHING FACILITIES:

- Are these facilities located away from food areas?
- Are these rooms kept clean and in good repair?

PEST CONTROL:

- Are outer openings protected from insects, rodents, and other animals?

FLOORS, WALLS, AND CEILINGS:

- Are floors clean and in good repair?

Are walls and ceilings clean and in good repair?

LIGHTING:

- Is necessary lighting provided?

VENTILATION:

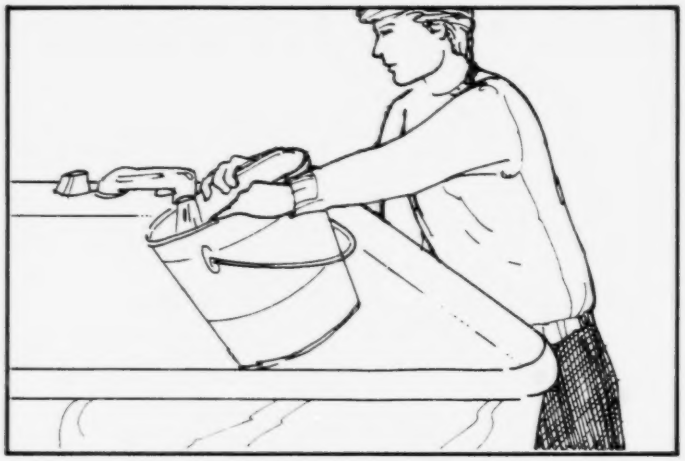
- Are rooms and equipment properly ventilated?

DRESSING ROOMS AND LOCKERS:

- Are rooms and lockers clean?

OTHER OPERATIONS:

- Are toxic items, soaps, and detergents stored and labeled properly?
- Are the grounds free of litter?
- Is cleaning equipment stored properly?



DO SKILL SHEET 5

Sanitation

Skill Sheet 5

Directions: Use this sample list of health code requirements to rate your food service operation.

	YES	NO
SOURCES OF FOOD:		
• Is food wholesome with no spoilage?		
• Is food in original containers with proper labels?		
FOOD PROTECTION:		
• Does potentially hazardous food meet temperature requirements during preparation, storage, and services?		
• Is food properly thawed?		
PERSONNEL:		
• Are workers free from infection?		
• Are their hands clean?		
• Are clean clothes and hair restraints worn?		
EQUIPMENT AND UTENSILS:		
• Are work surfaces clean?		
• Is equipment washed after use?		
• Is equipment stored properly?		
• Is the wash and rinse water clean and at the proper temperature?		
• Are all of the surfaces of equipment and utensils which contact the food clean?		
• Are single service articles discarded instead of being reused?		

	YES	NO
WATER SUPPLY AND SEWAGE DISPOSAL: • Is the water source safe with hot and cold water under pressure?		
• Is the sewage system working properly?		
PLUMBING: • Do the sink drains work freely?		
• Do the floor drains work freely?		
TOILET AND HANDWASHING FACILITIES: • Are these facilities located away from food areas?		
• Are these rooms kept clean and in good repair?		
PEST CONTROL: • Are outer openings protected from insects, rodents, and other animals?		
FLOORS, WALLS, AND CEILINGS: • Are floors clean and in good repair?		
• Are walls and ceilings clean and in good repair?		
LIGHTING: • Is necessary lighting provided?		
VENTILATION: • Are rooms and equipment properly ventilated?		
DRESSING ROOMS AND LOCKERS: • Are rooms and lockers clean?		
OTHER OPERATIONS: • Are toxic items, soaps, and detergents stored and labeled properly?		
• Are the grounds free of litter?		
• Is cleaning equipment stored properly?		

Sanitation
Unit Review

Directions: Circle the letter of the correct answer for each statement.

1. The bacteria Danger Zone of food is between the temperatures:
   A. 20°F to 40°F B. 40°F to 140°F C. 140°F to 160°F D. 160°F to 200°F

2. Temperatures above ____ °F will slow the growth of most bacteria.
   A. 110°F B. 120°F C. 130°F D. 140°F

3. The food-borne illness that is most common and is found on human skin, mouths, and throats is:
   A. Staph B. Botulism C. Perfringen D. Salmonella

4. The chemicals used to kill germs on counters and other surfaces in kitchens is called:
   A. Detergent B. Pesticide C. Antiseptic D. Sanitizer

5. The poison produced by growing bacteria is called:
   A. Toxin B. Sanitizer C. Hygiene D. Pesticide

Directions: Circle the letter of the statements that are true.

6. A. If you wash your hands before work, you don't need to wash them again all day.
   B. Bathe or shower daily.
   C. Brush your teeth after every meal if possible.
   D. Shampoo frequently.
   E. Use deodorants daily.
   F. It is not important to keep your fingernails trimmed.
   G. Have a regular check-up.
   H. Wear clean clothes and undergarments.
   I. Get enough rest and sleep to feel refreshed.

7. The practice of using older food before newer food is known as:
   A. First In/First Out (FIFO) B. Storage C. Perishable D. Non-perishable

8. Food should be stored on shelves that are at least _____ inches off of the floor.
   A. 2 inches B. 4 inches C. 6 inches D. 8 inches

9. Cleaning compounds should be stored (close to, away from) food items.

10. Raw meat should be stored on the (bottom shelf, top shelf) of a refrigerator.

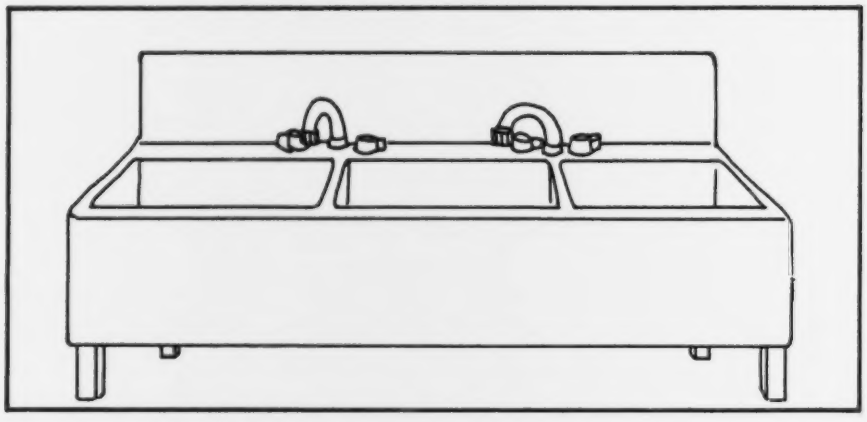
11. To maintain proper cooling, refrigerator temperature should be at:

    A. 32°F to 40°F B. 40°F to 45°F C. 45°F to 50°F D. 50°F to 55°F

12. To maintain proper freezing, freezer temperature should be at or below:
    A. 32°F B. 34°F C. 40°F D. 0°F

13. Fill in the sink below to indicate what the temperature should be in each sink compartment when washing pots and pans.

    A. 100°F B. 110°F C. 140°F D. 170°F



Directions: Circle the correct answers.

14. Pots and pans should (air dry, be towel dried) to prevent contamination.

15. Keep lids (on, beside) garbage containers to discourage pests.

16. To avoid clogging and germs, clean sink drains (daily, monthly).

Directions: Circle the guidelines for compliance with local health codes.

17. A. Keep items in original containers and properly labeled.
    B. Potentially hazardous food must meet temperature requirements for preparation, storage, and service.
    C. Personnel should have clean hands, clean clothes, and no infections.
    D. Wash and rinse water temperatures are not important for killing germs.
    E. Water source must be safe and under pressure.
    F. Sink and floor drains must work freely.
    G. Toilet facilities must be conveniently located away from food areas.
    H. No insects, rodents, or animals are allowed in food preparation area.
    I. Rooms and equipment must be properly ventilated.
    J. Placement and labeling of toxic items, soaps, and detergents is not necessary.

Sanitation
Performance Checklist

Student _____ has successfully performed the following steps of procedure.

	Identifying and Practicing Sanitary Food Handling	Yes	No	Comments
1.	Controlled temperature of food by keeping food out of danger zone			
2.	Prepared foods using correct sanitary and cooking methods			
3.	Served food safely			
	Using Personal Hygiene			
1.	Used good personal hygiene on the job			
2.	Practiced good personal hygiene at home			
3.	Reported all skin infections to supervisor			
4.	Reported all body infections to supervisor			
5.	Avoided undesirable personal habits			
	Storing Food Safely			
1.	Covered all food properly			
2.	Set correct refrigerator and freezer temperatures			
3.	Stored food in shallow containers			
4.	Did not refreeze foods			
5.	Used FIFO method			
6.	Kept refrigerator clean and dry			
7.	Covered food on refrigerator shelves			
8.	Stored raw food correctly in refrigerator			
9.	Cooled prepared foods quickly in correct containers			
	Storing Non-perishable Items			
1.	Used FIFO method			
2.	Kept storage area clean			
3.	Checked dates and discarded out-dated canned foods			
4.	Notified supervisor of dented, bulging, or rusted cans			
5.	Did not use damaged or torn food items			
6.	Did not store food items on floor			
7.	Stored cleaning compounds correctly			
8.	Consulted with supervisor when questions arose			
9.	Labeled containers carefully			
	Sanitizing Physical Plants			
1.	Cleaned and sanitized dishes properly			
2.	Cleaned all food service areas			
3.	Used proper sanitary procedures for good pest control			
4.	Stored cleaning supplies and equipment properly			
51.	Noted proper guidelines for complying with local health codes			

Satisfactory - Should Move On ☐
Repeat This Unit ☐

_____
Student's Signature/Date

111
_____
Instructor's Signature/Date

SUPPLEMENTARY UNITS

Restaurant/Institutional Food Service

Safety

Instructional Materials Laboratory
10 Industrial Education Building
University of Missouri-Columbia
314/882-2883

Safety
Introduction

Following correct principles of safety and accident prevention are important in food service and preparation because of the equipment and the workers' fast pace. So, knowing proper first aid procedures is an important part of your work as a food service employee.

Unit Objectives

After completion of this unit, you will be able to recognize and demonstrate good safety practices when preparing and serving food.

Specific Objectives

After completion of this unit, you should be able to specifically:

1. Use cutting tools safely.
2. Recognize hazards in food service operations.
3. Use cleaning and pest control chemicals safely.
4. Demonstrate proper fire safety procedures.
5. Use first aid procedures.
6. Show how to perform the Heimlich maneuver.

Are You Ready?

Check the statement which is true for you.

☐ I can do the tasks and I am ready to do the Performance Checklist.

➧ **SEE YOUR INSTRUCTOR**

☐ I want to study the information in this unit before doing the Performance Checklist

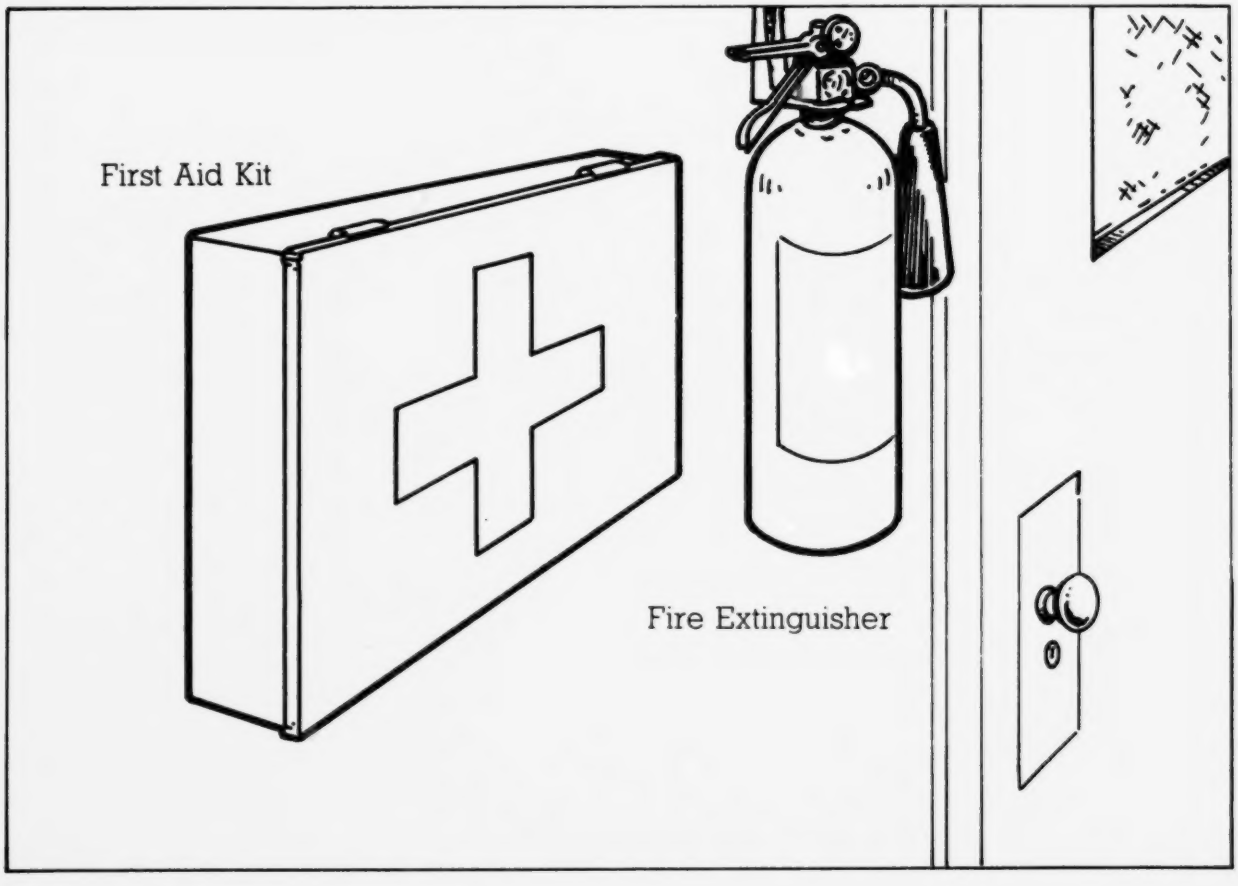
➧ **TURN THE PAGE AND BEGIN**

A. Terms and Equipment for Food Service Safety

Terms

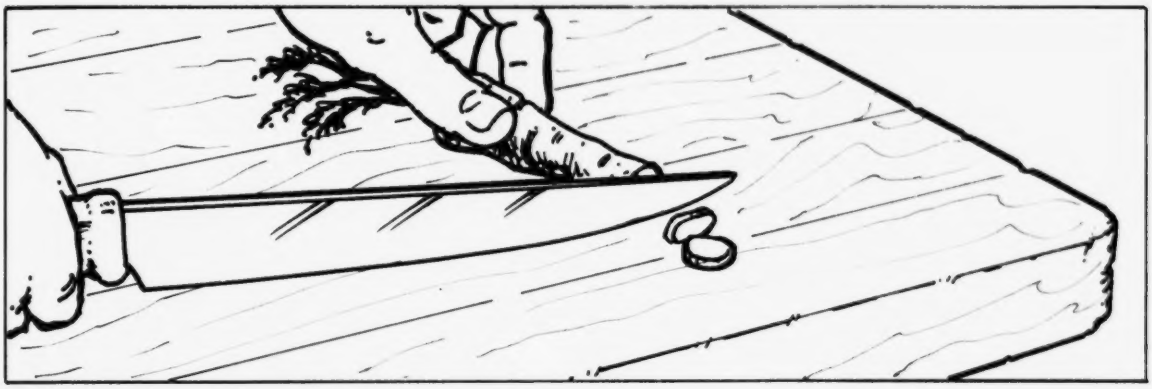
1. Caustic - Harsh, dangerous solution that is capable of damaging eyes or skin and which could be fatal if swallowed (examples: ammonia, bleach, pesticides)
2. First Aid - Immediate treatment given for injuries such as falls, cuts, or burns
3. Hazard - A dangerous condition which can cause an accident
4. Heimlich Maneuver - Special technique for helping victims of choking
5. Pesticides - Chemicals used in the control of rats, flies, and roaches
6. Safety - Conditions that are free of dangers
7. Safety Guards - Devices used on large, hazardous equipment to protect the worker from injury
8. Teamwork - Working together with co-workers to complete a job

Equipment

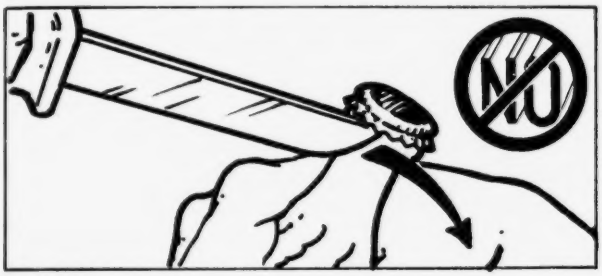


B. Guidelines for Using Cutting Utensils Safely

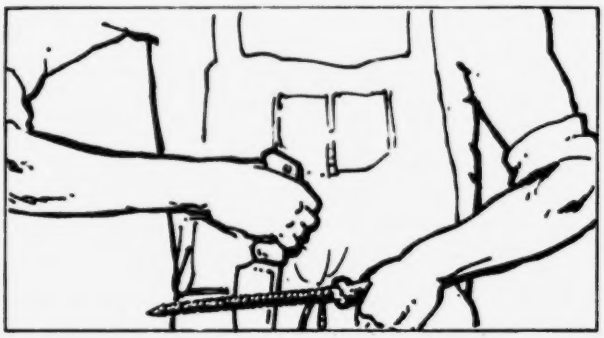
Slicing, chopping, and cutting are often necessary when you prepare food. These activities require sharp knives and tools with which to work. For the safety of you and your co-workers, certain rules should be followed when preparing and serving food with these tools.



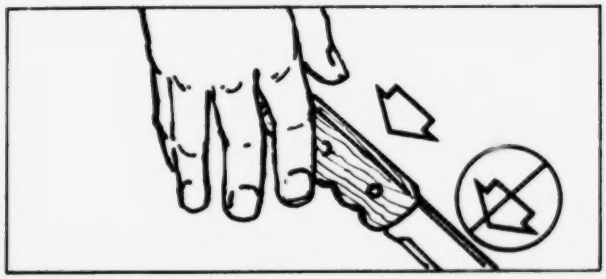
1. Use the right tool for the right job. Using a sharp tool for a job that it is not meant to do can be dangerous. Using a knife, for instance, to open a bottle may result in a cut.



2. Make sure knives are sharp. A sharp knife is safer than a dull one because it cuts easier. Dull knives require you to use pressure or force and you increase the risk of the knife slipping.



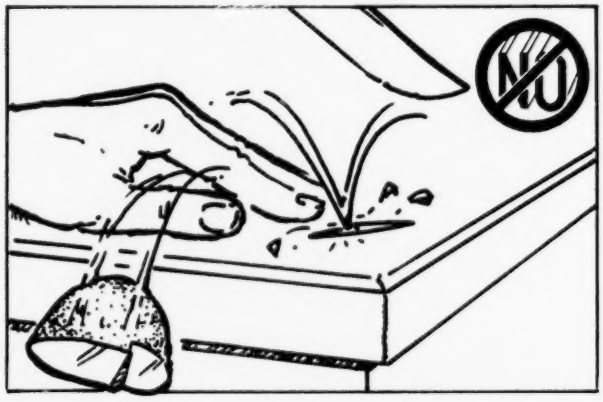
3. Pick up a knife by the handle, not the blade.



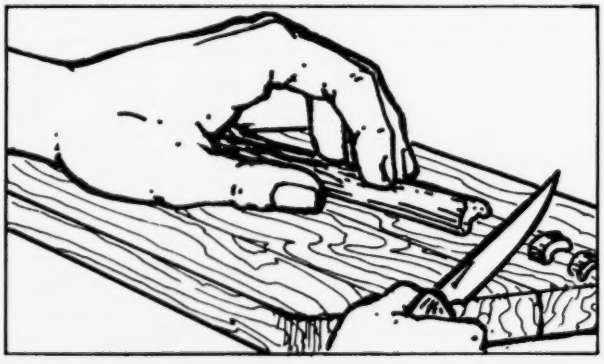
4. Cut by moving the knife away from you, not toward you.

5. Always use on a cutting board for cutting. Counter tops may be slippery and cause you to cut yourself. A sharp knife can also damage the counter top.

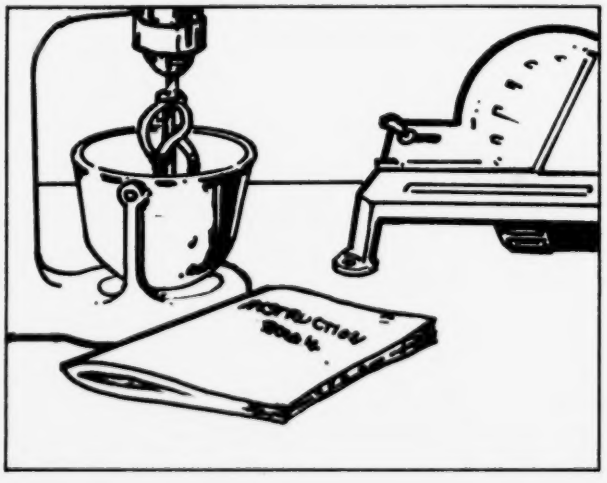
NOTE: Do not cut on stainless steel work surfaces.



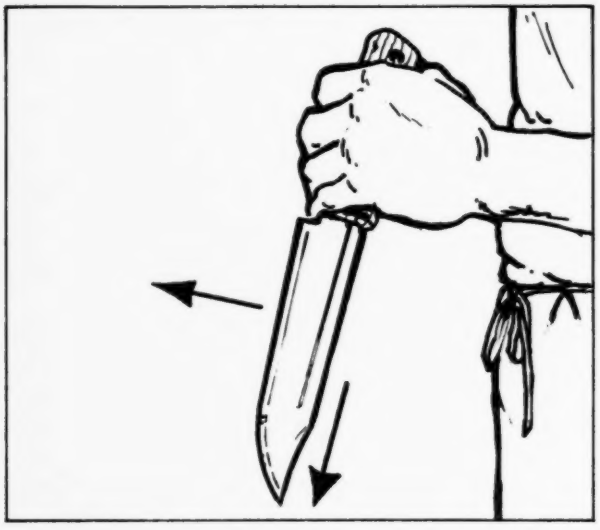
6. Do not hold food in your hand when cutting. Rest the food on its flat side on a cutting board as you cut. (Exceptions would be peeling potatoes or carrots.)



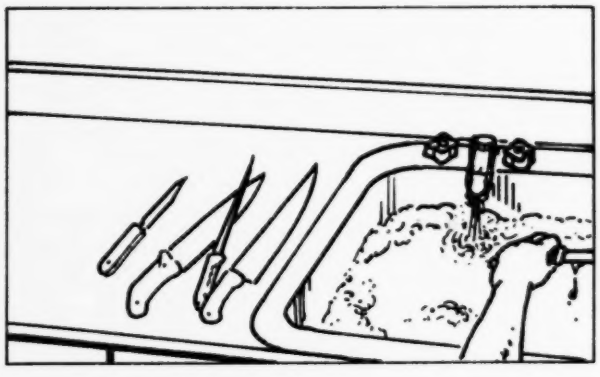
7. Use extreme caution when using kitchen machines such as slicers, mixers, or grinders.
   - Read the instruction manual
   - Follow directions
   - Leave safety guards in place
   - Keep away from moving parts
   - Unplug the machine before cleaning it



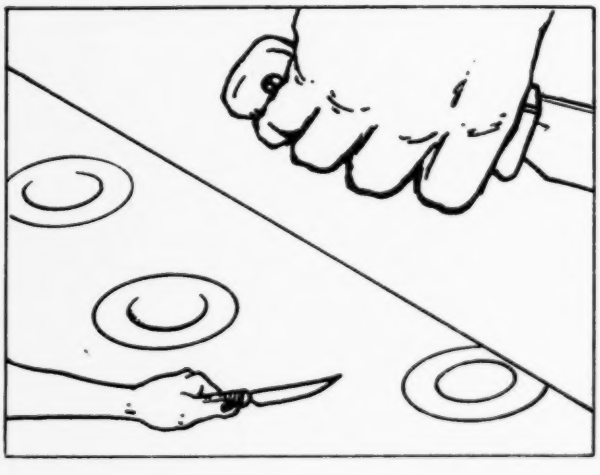
8. Carry knives safely...
   - by the handle with the point down and the blade turned away from you,
   - never in your pocket, and
   - do not try to catch a knife if it slips from your hand, get out of its way instead.
   - Watch where you are going to avoid cutting anyone.



9. Keep knives visible when cleaning or storing them.
   - Place dirty knives next to the sink, not in the water. Hold on to a knife when washing and drying it.
   - Store knives in racks, not loose in a drawer.



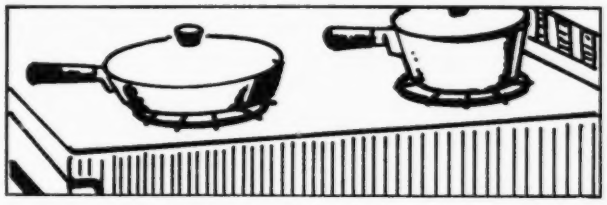
10. Knife safety isn't meant just for the kitchen. Food service workers in the dining room must also practice knife safety.
    - Place knives on the tables carefully, always holding them by their handles.
    - When clearing tables, be careful when picking up sharp knives. Pick them up carefully, not in a group with spoons and forks.



NOTE: Hold all silverware and utensils by their handles.

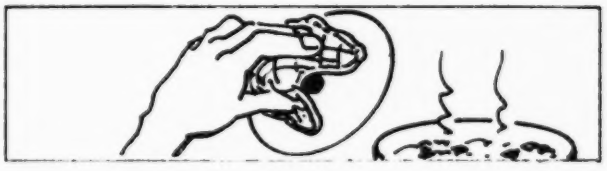
4. Be extremely careful when working with hot equipment or food.

5. Keep pan handles turned in rather than sticking out to avoid knocking them off the range.



6. Warn people when you are walking behind them with hot food; and keep out of the way of persons with hot food.

7. Always use dry pot holders instead of dish cloths. Wet hot pads conduct heat faster and can cause steam burns.

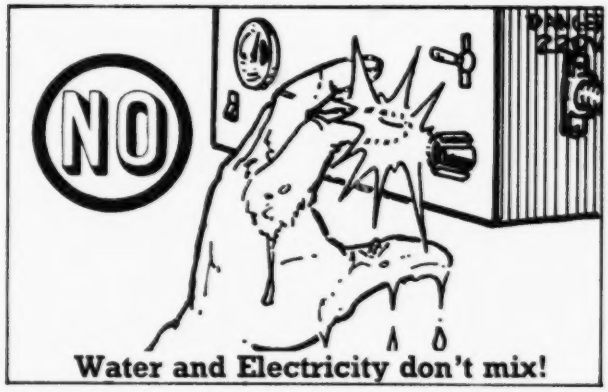


8. Carry heavy trays of food on your shoulder. If it is extremely heavy, two people may need to carry it.

NOTE: Bend at the knees to place tray on food stand.

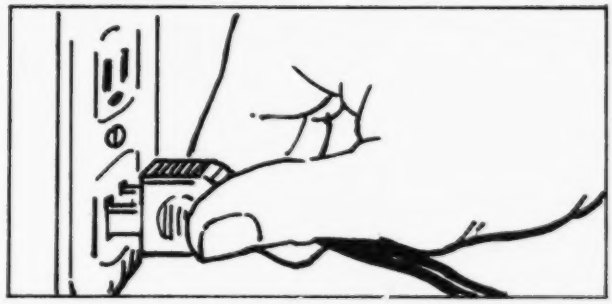
9. Operate electrical appliances only with dry hands. Wet hands in contact with electrical appliances may cause electrical shock.

   CAUTION: Keep your feet on dry surfaces when plugging in appliances.

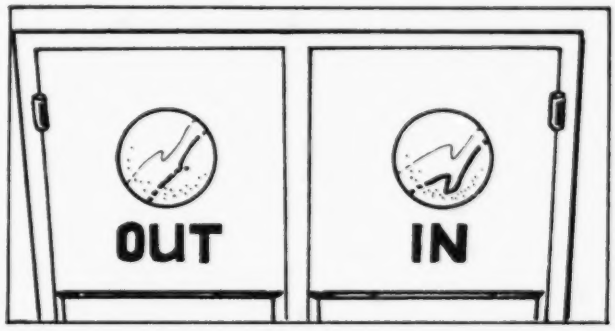


Water and Electricity don't mix!

10. Unplug appliances (with dry hands) by holding the plug, not the cord.



11. Be aware of the traffic pattern and flow in a food service operation. This will help keep you from running into other persons.

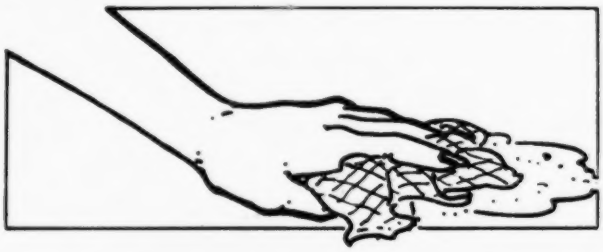


12. If you see someone incorrectly using a piece of equipment, offer to show that person the correct procedure.

C. Recognizing Hazards in Food Service Operations

Safety in a food service operation doesn't just happen - the workers make it happen by being alert to unsafe condiitons.

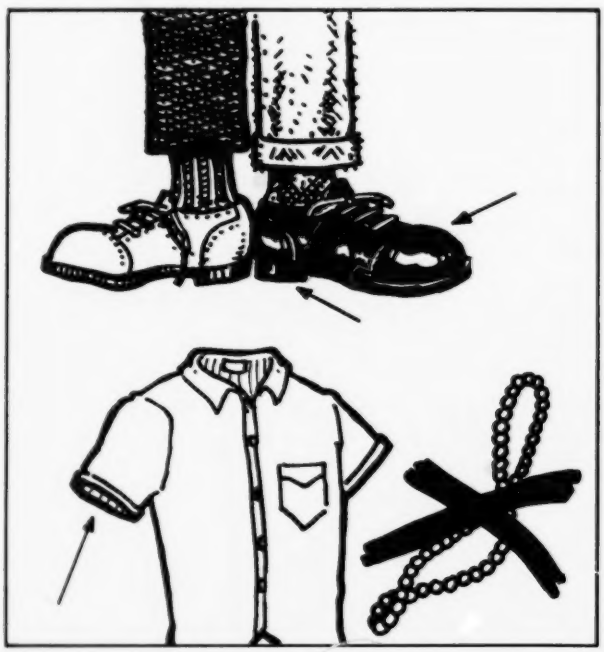
1. The primary rules of safety are:
   - If you drop it, pick it up.
   - If you spill it, wipe it up.
   - Keep your mind on what you are doing.



2. Dress for safety:
   Wear low-heeled shoes that lace up and have rubber soles to prevent slipping. Choose shoes with closed toes or safety toes to protect your feet.

   Wear short sleeves rather than baggy long sleeved blouses or shirts. Baggy long sleeves can catch on pot handles, equipment, or flames.

   Do not wear dangling earrings, necklaces, or bracelets which can get caught in equipment or fall into food.



3. Watch out for dangers! Slippery floors can be dangerous. Walk around just-washed floors and always wipe up spills.

D. Using Chemicals Safely

1. Ammonia and bleach solutions are often used as cleaning agents. They are called sanitizers. Rubber gloves should be worn to avoid skin contact with sanitizers. Good ventilation must be provided to avoid breathing fumes from these solutions.

2. When strong caustic solutions such as drain cleaners must be used, wear rubber gloves and goggles or a face shield for protection.

3. Do not mix cleaning chemicals. They can make a dangerous solution when mixed.

4. Pesticides must be used occasionally to guard against mice, flies, and roaches.
   - Always store pesticides away from food, countertops, and dishes.
   - Read labels carefully and follow their directions.
   - Always wash your hands after handling pesticides, even if you wear rubber gloves.

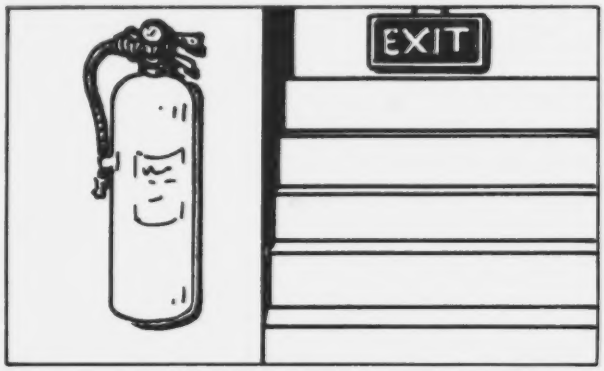
B. Recognizing Abbreviations

When reading and interpreting recipes, it is important that you recognize abbreviations so that you will get the right amount of an ingredient in the recipe.
Study these abbreviations so you will understand what they mean when you follow recipes.

teaspoon = t. or tsp.
tablespoon = T. or tbsp.
cup = c. C.
pint = pt.
quart = qt.
gallon = gal.
ounce = oz.
fluid ounce = fl. oz.
pound = lb. or #
dozen = doz.
gram = g. or gm.

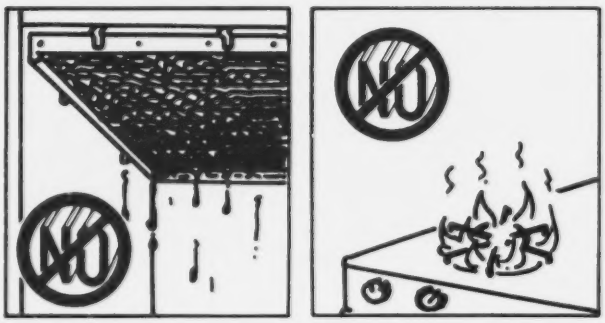
E. Fire Safety

The best advice for fire safety is to avoid situations which can cause a fire.



1. Know where fire extinguishers are located and know how to use them.

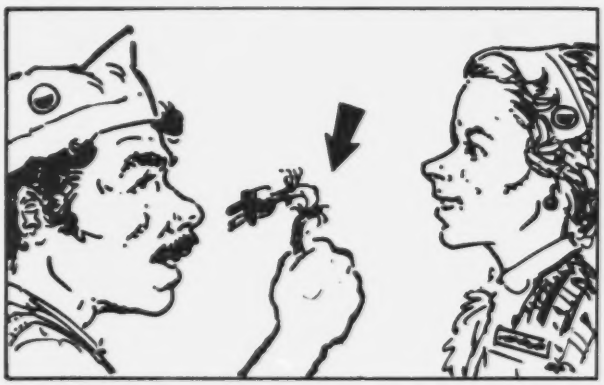
2. Keep fire doors, exits, and stairs free of equipment and materials.



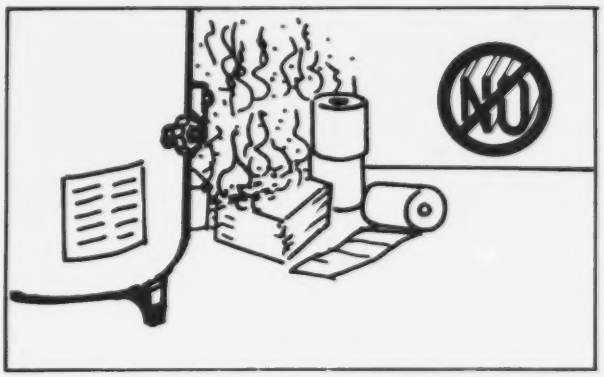
3. Keep vent hoods, filters, and ovens clean and free of grease build-up. Grease and fat burn easily. That type of fire can spread rapidly.

4. Turn off open flames when not in use.

CAUTION: Never leave equipment unattended when you are using it.



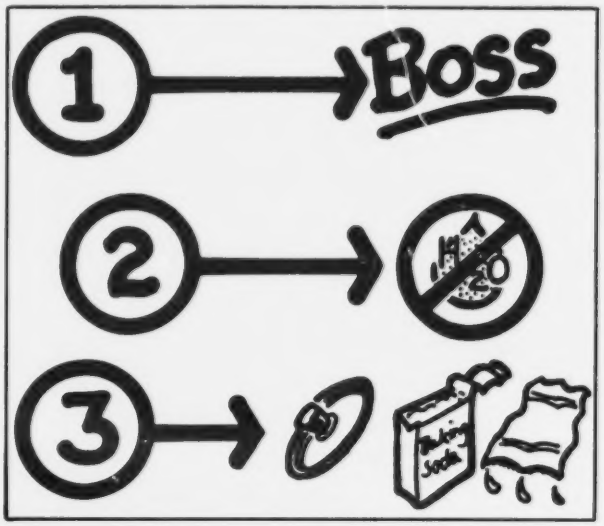
5. Faulty electrical equipment should be reported at once to the supervisor.



6. Do not store paper products near a heat source.

In case of a fire:

1. Report any fire immediately to your supervisor.
2. Never put water on a grease fire; it will cause the fire to spread.
3. Cut off the air supply by smothering the fire. Use a lid, fire extinguisher, baking soda, or damp towel to do this.



NOTE: Multipurpose extinguishers can be used on all types of fires.

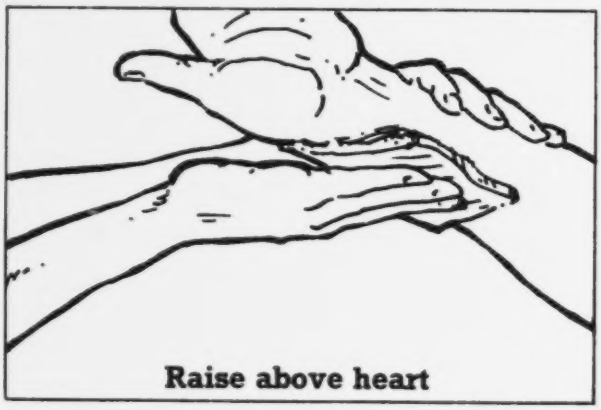
ORDINARY FIRE (Class A)	**How It Starts:** Paper, wood, or fabric get too close to a heat source and ignites. **How To Extinguish It:** • Use water • Smother it with a damp towel • Use Class A or multipurpose fire extinguisher on it.
GREASE FIRE (Class B)	**How It Starts:** Grease, fat, or oil gets too hot or comes close to a heat source. **How To Extinguish It:** • Smother with damp towel • Smother with baking soda • Use Class B or multipurpose fire extinguisher
ELECTRICAL FIRE (Class C)	**How It Starts:** Electrical shorting or faulty wiring **How To Extinguish It:** • Use Class C or multipurpose fire extinguisher

F. Procedures for Using First Aid

If an accident occurs on the job and first aid is needed, knowing the appropriate first aid procedures and acting quickly may prevent serious injury or save someone's life.

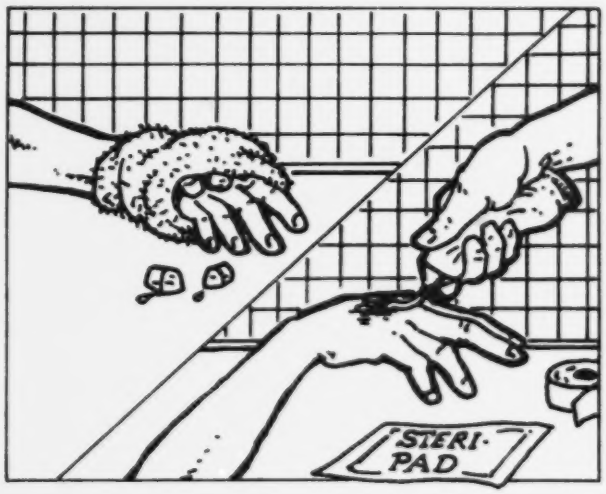
The most common accidents that occur in food service areas are cuts, burns, and falls.

1. Proper first aid for cuts should stop the bleeding and prevent infection.
   - Press a sterile gauze pad against the cut.
   - Apply pressure while raising the cut area. (Raise it above the heart whenever possible.)
   - When bleeding stops, apply an antiseptic and cover the cut with a clean bandage.



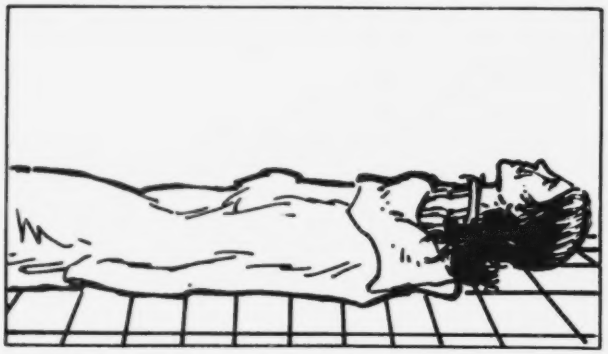
Raise above heart

2. Proper first aid for burns helps to reduce and prevent infection.
   - Hold the burned area under cold water or wrap some ice in a clean towel and hold it on the burn for several minutes.
   - Apply an antiseptic ointment to the area and cover the burn with a sterile piece of gauze.



3. Proper first aid for severe falls consists of keeping the victim quiet, keeping the victim warm, and calling the doctor immediately.
   - When a fall occurs and a back or neck injury is possible, don't move the victim.
4. Be sure to keep the patient calm and covered in case of shock. Provide adequate ventilation and keep other people away.

   NOTE: 911 is often an emergency number to call.



5. After determining how severe a cut, burn, or fall is, summon an ambulance or consult a physician if necessary.

G. Performing the Heimlich Maneuver

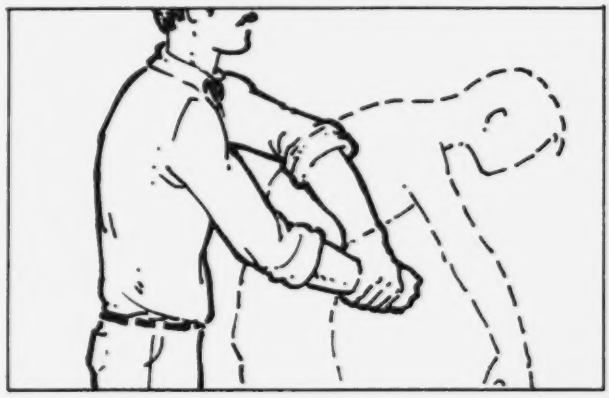
Food choking is caused by a piece of food which lodges in the throat, blocks the airway, and makes it impossible for the victim to breathe or speak. A person choking on food will die in four minutes. You can save a life by using the Heimlich Maneuver.

Signs of food choking:

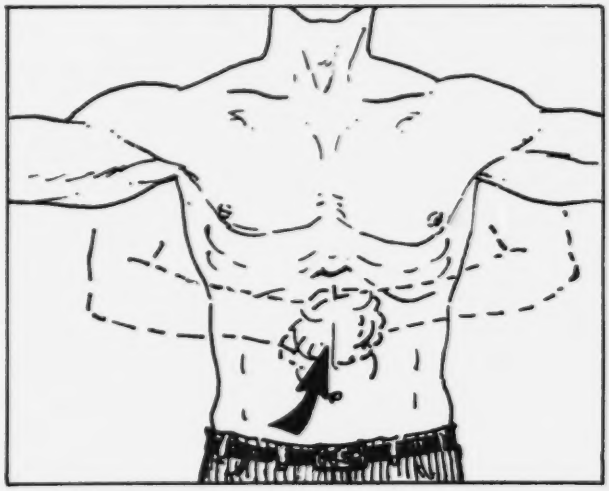
1. The person cannot speak.
2. The person literally turns blue.
3. The person collapses.

What to do for the Victim of Food Choking:

1. Stand behind the victim and wrap your arms around the person's waist. Allow the victim's arms and upper torso to hang forward.



2. Grasp your fist with your other hand and place the fist against the victim's abdomen slightly above the navel and below the rib cage.
3. Press your fist forcefully into the victim's abdomen with a quick upward thrust.
4. Repeat steps if the food particle does not pop out of the victim's mouth.



DO SKILL SHEET 1

Safety
Skill Sheet 1

Directions: Put a mark in the box beside each statement that tells a practice which you currently use in your laboratory setting. Afterwards, circle the numbers of the statements which are examples of safety practices which you should follow in the lab.

YES	NO	Do You:
☐	☐	1. Cut away from yourself when using a knife?
☐	☐	2. Keep knives visible when cleaning or storing them?
☐	☐	3. Use the proper knife for each job?
☐	☐	4. Operate electrical appliances only with dry hands?
☐	☐	5. Pay attention while operating equipment?
☐	☐	6. Keep handles turned away from the edge of the stove?
☐	☐	7. Keep pesticides away from food?
☐	☐	8. Wipe up spills immediately?
☐	☐	9. Report defective equipment?
☐	☐	10. Keep floors free of litter?
☐	☐	11. Keep work areas clean and orderly?
☐	☐	12. Carry hot pans with a dry hot pad?
☐	☐	13. Wear safe work shoes?
☐	☐	14. Know where the fire extinguishers are located?
☐	☐	15. Know how to use fire extinguishers?

Safety
Unit Review

Directions: Put an "x" in front of each correct statement about cutting safety.

_____ 1. Accidents can happen if a sharp knife is used for something besides cutting.

_____ 2. A sharp knife is safer than a dull knife.

_____ 3. A knife can be safely picked up by its blade or its handle.

_____ 4. Cutting away from yourself on a cutting board is a very safe way of cutting.

_____ 5. Some machines do not have to be unplugged before cleaning.

_____ 6. Knife safety must be practiced everywere in a food service operation.

Directions: Circle the best word(s) in each sentence to make a safety rule.

7. Low-heeled shoes with (leather, rubber) soles to prevent slipping are the safest.
8. If you spill something, (walk around it, wipe it up).
9. When pans are on a stove, keep the pan handles turned (out, in).
10. Use (dry potholders, heavy trays) to carry a hot pan.
11. Watch the traffic patterns and flow in a food service operation, especially if you are carrying (hot food, damp towels).
12. Always make sure your hands are (dry, covered) when working with electrical appliances.

Directions: Circle the letter of the correct answer for each statement below. Statements may have more than one correct answer.

13. When using strong caustic solutions, you should wear the following safety equipment:
    a. leather shirt
    b. rubber gloves
    c. goggles
14. Good safety rules for pesticides are:
    a. Store pesticides away from food.
    b. Keep pesticides away from counter tops.
    c. Wash your hands after handling pesticides.

Directions: Fill in the blanks with the words below to make correct sentences about how to prevent or how to put out a fire. Each word is used twice.

electrical fires **ordinary fires** **grease fires**

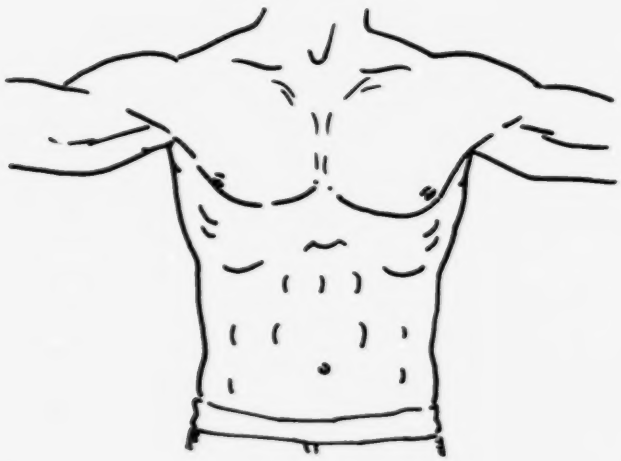
15. Store paper products away from heat sources to prevent _____.
16. Fat burning in a frying pan would be considered _____.
17. Report faulty electrical equipment to your supervisor to prevent _____.
18. Use a Class C or multipurpose fire extinguisher to put out _____.
19. Smother _____ with damp towels, baking soda, or use a Class B or multipurpose fire extinguisher.
20. Use water, a damp towel, or a Class A or multipurpose fire extinguisher to put out _____.

Directions: Match the proper first aid technique with the accident listed by placing the correct letter in the blank space.

_____ 21. severe cut
_____ 22. serious fall
_____ 23. burn

a. Don't move the victim.
b. Hold affected area under cold water or apply ice.
c. Apply pressure to the affected area.

24. Mark an "x" on the picture to show where to apply pressure when using the Heimlich maneuver.



Safety
Performance Checklist

Student _____ **has successfully performed the following steps of procedure.**

	Using Cutting Utensils Safely	Yes	No	Comments
1.	Used the right tool for the right job			
2.	Made sure knives were sharp			
3.	Picked knives up by handles			
4.	Correctly cut with knife			
5.	Always used a cutting board for cutting			
6.	Did not hold food in hand when cutting			
7.	Used extreme caution with kitchen slicers, mixers, and grinders			
8.	Carried knives correctly			
9.	Kept knives visible when cleaning and storing them			
10.	Practiced knife safety in the dining room			
	Recognizing Hazards in Food Service Operations			
1.	Recognized primary rules of safety			
2.	Dressed for safety on the job			
3.	Recognized and corrected obvious dangers			
4.	Was careful when working with hot food and equipment			
5.	Kept pan handles turned inward on stove			
6.	Warned people when carrying hot food			
7.	Used dry potholders			
8.	Used shoulder to carry heavy food trays			
9.	Made sure hands were dry before operating electrical appliances			
10.	Unplugged appliances by the plug, not the wire			
11.	Identified kitchen traffic pattern			
12.	Showed coworkers correct procedure for using equipment			
	Using Chemicals Safely			
1.	Used safe procedures when cleaning with ammonia			
2.	Wore safety protection when using caustic solutions			
3.	Did not mix cleaning solutions			
4.	Safely used and stored pesticides			
	Fire Safety			
1.	Identified locations of fire extinguisher			
2.	Kept fire doors, exits, and stairs clear			
3.	Kept ovens, filters, and hoods free of grease			
4.	Turned off open flames when not in use			
5.	Reported faulty electrical wiring when discovered			
6.	Kept paper products stored away from heat sources			
7.	Described what to do in case of fire			
8.	Recognized the three types of fires			

Using First Aid	Yes	No	Comments
1. Demonstrated proper first aid for cuts			
2. Demonstrated proper first aid for burns			
3. Demonstrated proper first aid for falls			
4. Demonstrated what to do to help prevent shock			
5. Recognized when to call ambulance or physicians			
Performing the Heimlich Maneuver			
1. Recognized signs of choking			
2. Stood behind victim and wrapped arms around waist			
3. Properly grasped fist against victim's abdomen			
4. Forcefully pressed fist with quick upward thrust			
5. Repeated procedure until particle was dislodged			

Satisfactory - Should Move On ☐
Repeat This Unit ☐

_____
Student's Signature/Date

_____
Instructor's Signature/Date

SN-91-S

SUPPLEMENTARY UNITS

Restaurant/Institutional Food Service

Using Basic Math Skills

Instructional Materials Laboratory
10 Industrial Education Building
University of Missouri-Columbia
314/882-2883

Using Basic Math Skills
Introduction

As a food service employee, whether in a fast food operation or in an institutional setting, you will use basic math skills to perform daily food service tasks.

This unit will familiarize you with equivalents, abbreviations, procedures for weighing and measuring, cashiering, and adapting recipes for costing and converting.

Unit Objectives

After completion of this unit, you will be able to use your basic math skills to interpret, adapt, and cost recipes and to handle money correctly.

Specific Objectives

After completion of this unit, you should be able to specifically:

1. Recognize food service abbreviations and equivalents.
2. Weigh and measure ingredients.
3. Convert recipes.
4. Cost recipes.
5. Perform cashiering procedures.

Are You Ready?

Check the statement which is true for you.

☐ I can do the tasks and I am ready to do the Performance Checklist.

SEE YOUR INSTRUCTOR

☐ I want to study the information in this unit before doing the Performance Checklist.

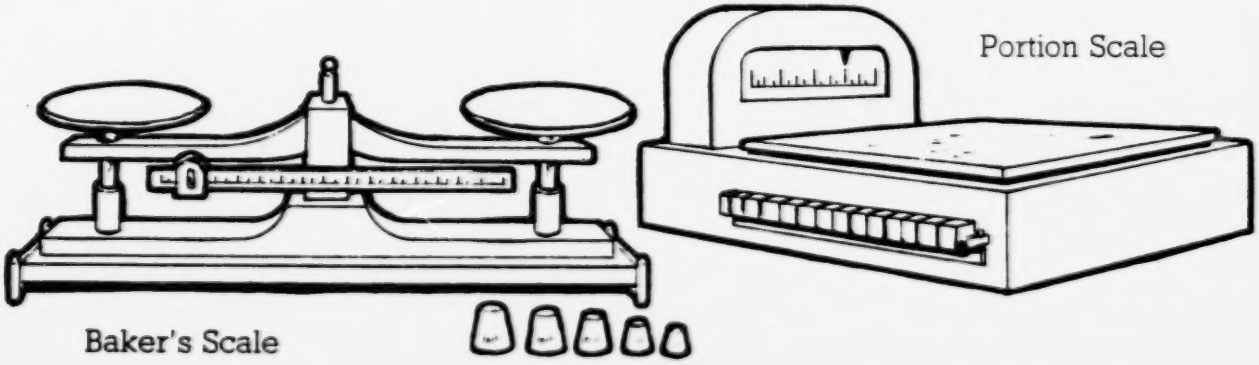
TURN THE PAGE AND BEGIN

A. Terms and Equipment for Using Basic Math Skills

Terms

1. Abbreviation - Letters that represent certain words or measurements
2. Baker's Scale - Scale with weights to determine accurate amounts of ingredients to use in preparing a recipe
3. Cash Drawer - Drawer with compartments where money is held
4. Cashier - Person in charge of collecting money and returning change to customers for meal services
5. Convert - To change items such as weights and measurements or recipe amounts
6. Costing - Determining how much every ingredient in a selected dish will cost
7. Cost Per Portion - Cost of one serving
8. Decrease - To make smaller, as to decrease a recipe amount
9. Equivalent - A measurement that equals another form of measurement
10. Fluid - A liquid
11. Gratuity - Tips given to waiter/waitress for good service
12. Increase - To make larger, as to increase a recipe amount
13. Market Price - The amount of money generally required to buy an item
14. Portion Control - To control the amount of food served by using certain portion utensils such as ladles or dishers
15. Quantity - A measured or estimated amount of an item
16. Portion Scale - Scale used to weigh food servings up to 32 ounces
17. Standardized Recipe - Tested recipe used in commercial or institutional kitchens
18. Yield - Amount that a recipe will make or produce

Equipment



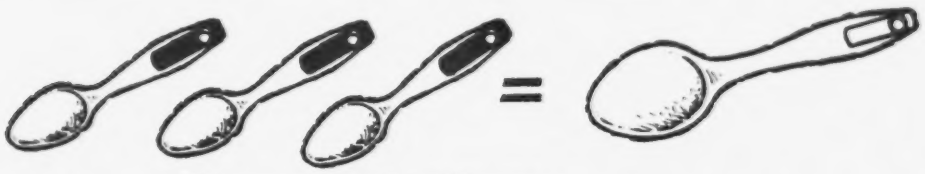
Portion Scale

Baker's Scale

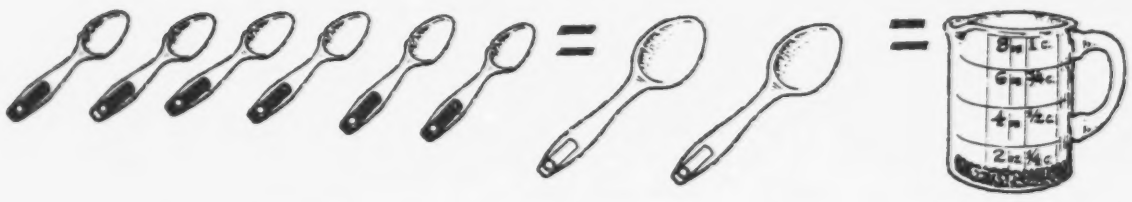
C. Recognizing Equivalent Measurements

When preparing recipes, it is also important to recognize equivalent measurements which can be used in preparing ingredients. An equivalent measurement is one that equals another form of measurement.

a pinch = a dash = a few grains = 1/8 teaspoon or less



3 teaspoons = 1 tablespoon

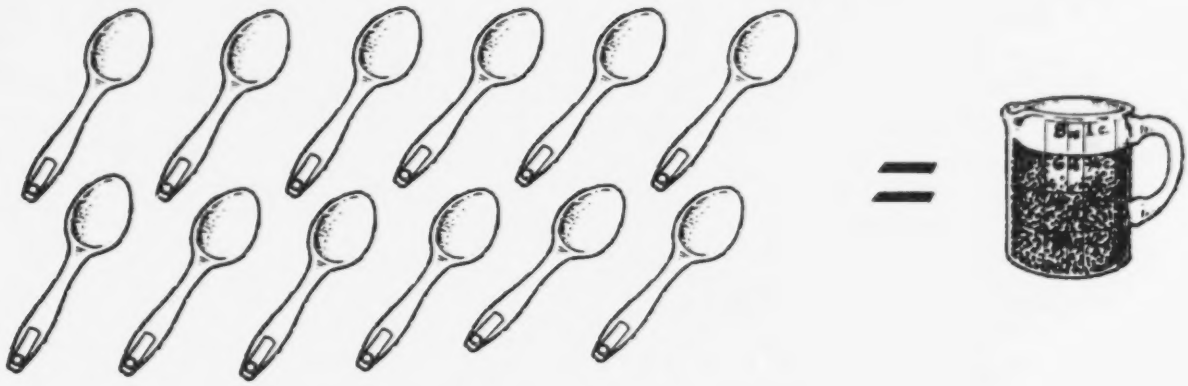


6 teaspoons = 2 tablespoons = 1/8 cup = 1 fluid ounce

4 tablespoons = 1/4 cup = 2 fluid ounces

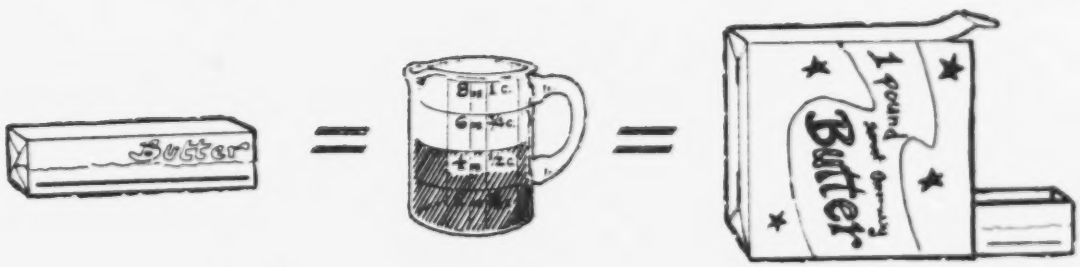
8 tablespoons = 1/2 cup = 4 fluid ounces

Using Basic Math Skills

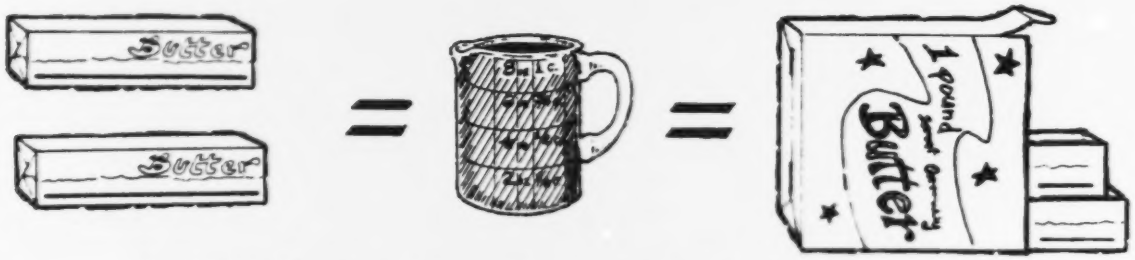


12 tablespoons = 3/4 cup = 6 fluid ounces

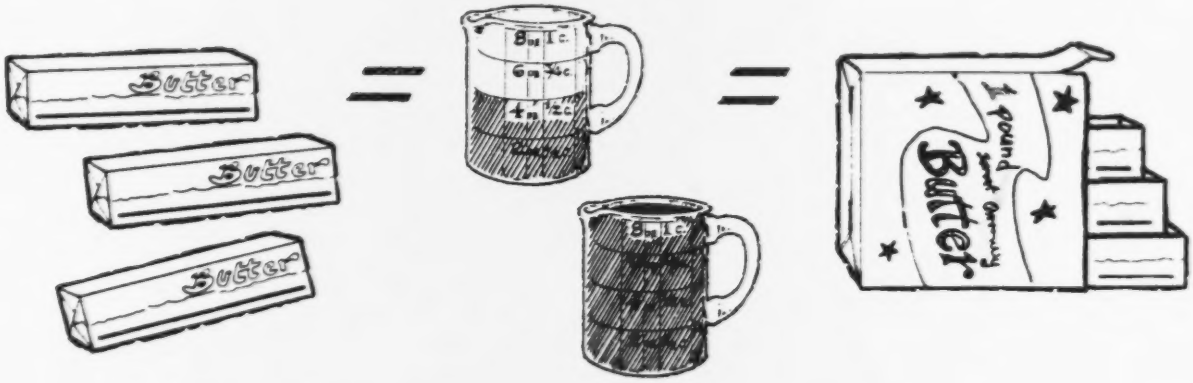
16 tablespoons = 1 cup = 8 fluid ounces



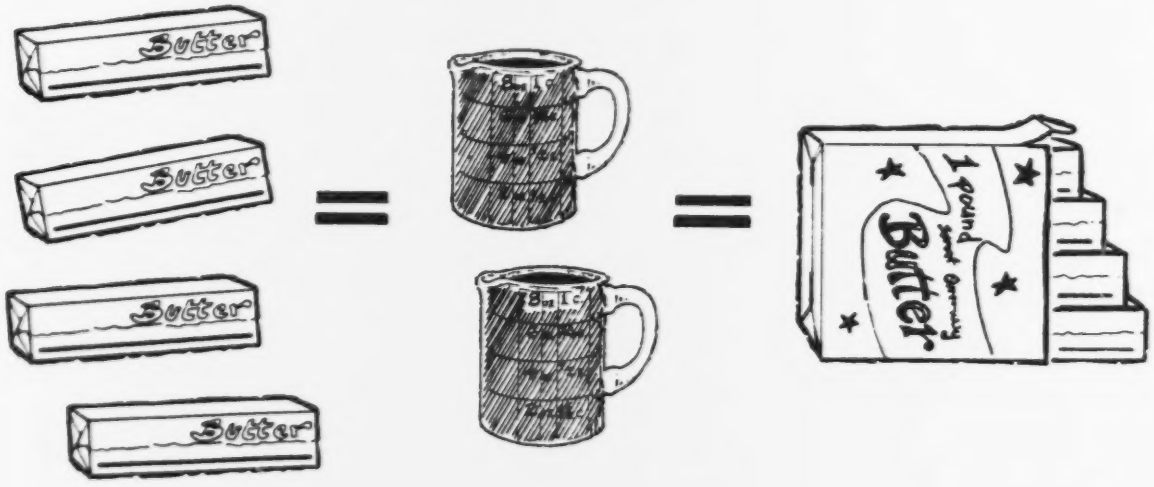
1 stick of butter = 1/2 cup = 4 ounces = 1/4 pound



2 sticks of butter = 1 cup = 8 ounces = 1/2 pound

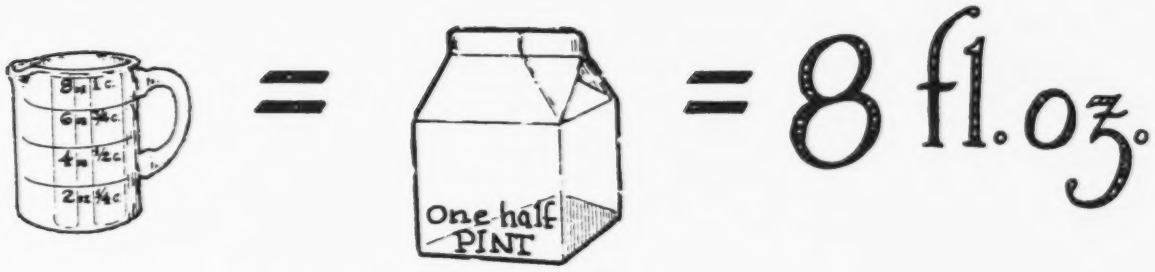


3 sticks of butter = 1½ cups = 12 ounces = 3/4 pound

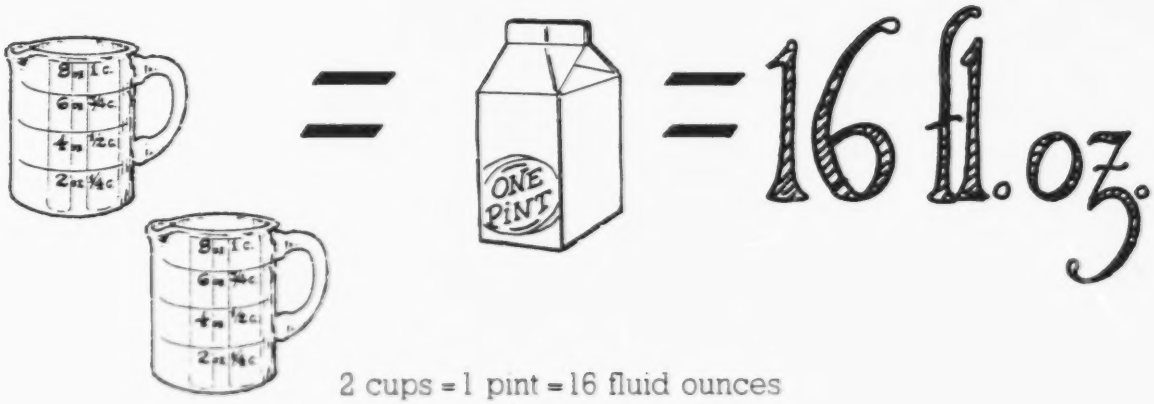


4 sticks of butter = 2 cups = 16 ounces = 1 pound

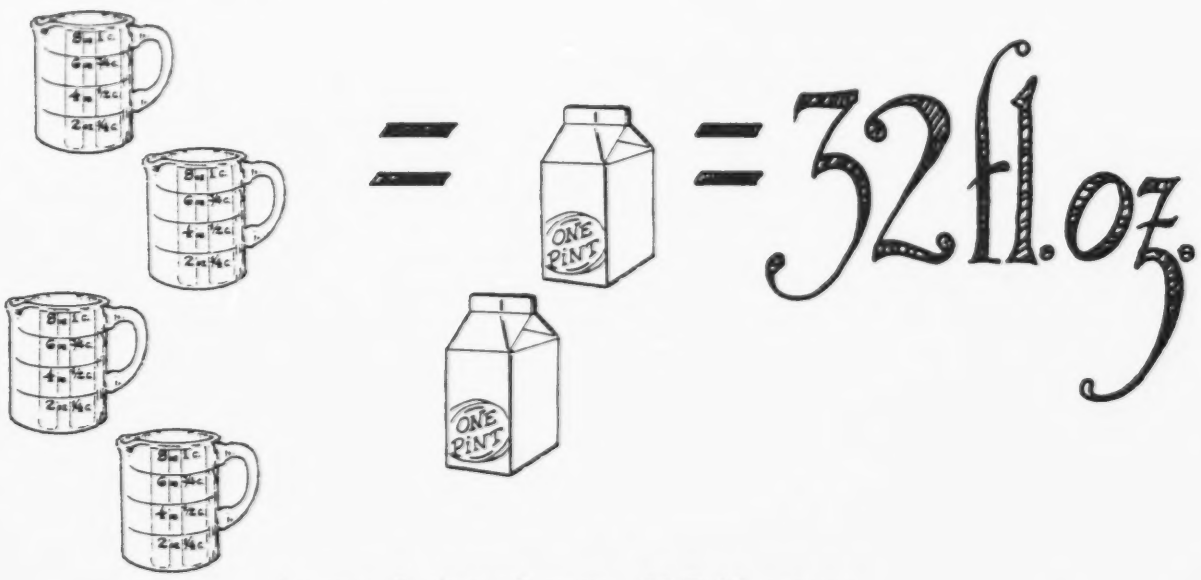
Using Basic Math Skills



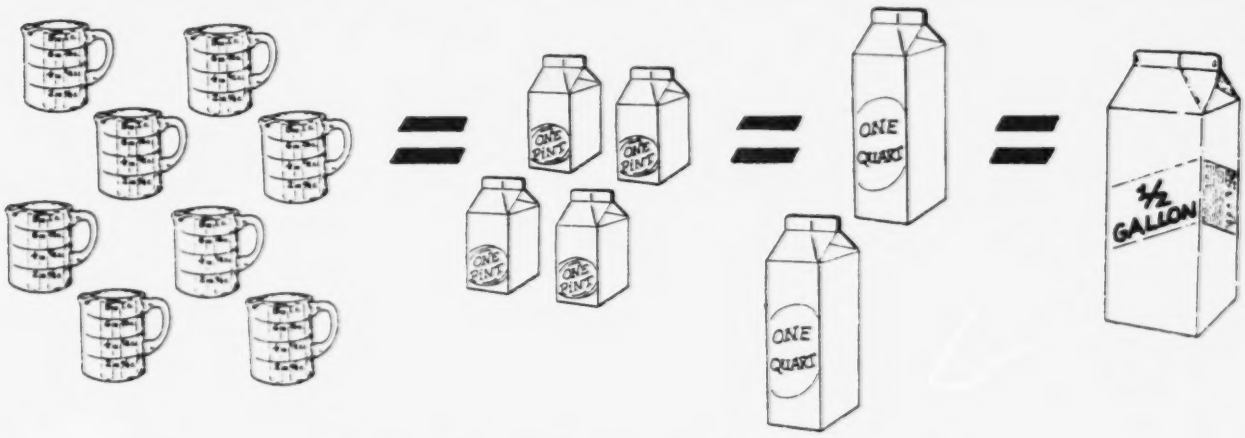
1 cup = 1/2 pint = 8 fluid ounces



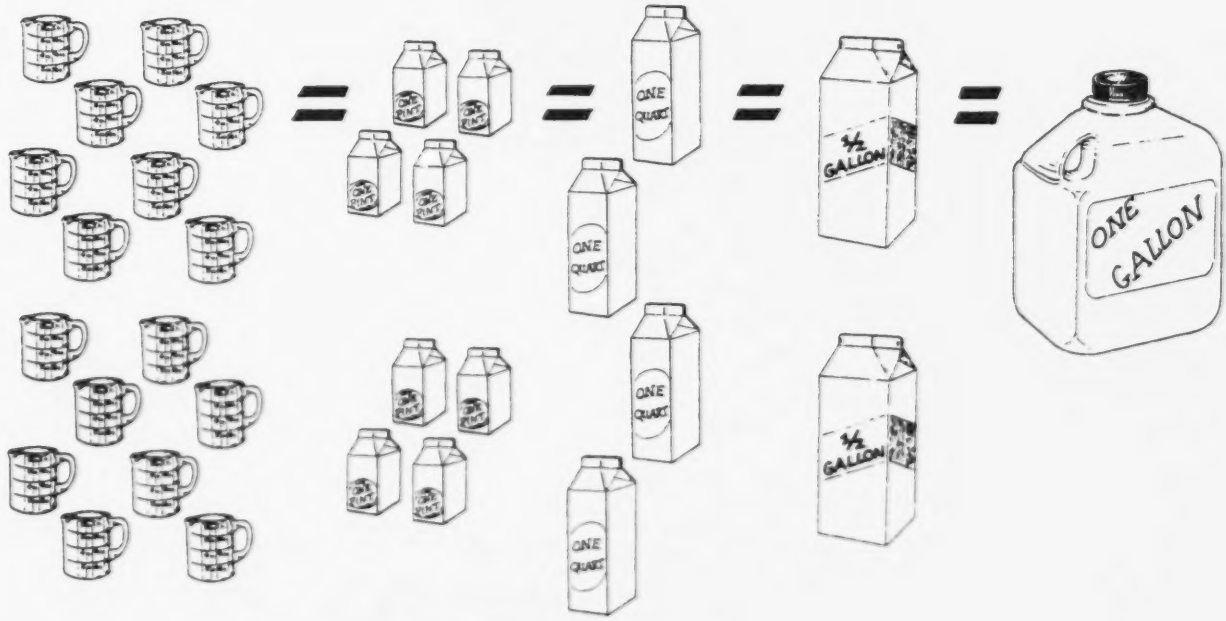
2 cups = 1 pint = 16 fluid ounces



4 cups = 2 pints = 1 quart = 32 fluid ounces



8 cups = 4 pints = 2 quarts = 1/2 gallon



16 cups = 8 pints = 4 quarts = 1 gallon

DO SKILL SHEET 1

DO ACTIVITY SHEET 1

Using Basic Math Skills
Skill Sheet 1

Directions: Fill in the blanks with the appropriate abbreviations.

1. teaspoon: _____ or _____
2. tablespoon: _____ or _____
3. cup: _____
4. pint: _____
5. quart: _____
6. gallon: _____
7. ounce: _____
8. fluid ounce: _____
9. pound: _____ or _____
10. dozen: _____

Directions: Write the correct number of each equivalent in the blanks.

1. _____ teaspoon = 1 tablespoon
2. _____ tablespoon = 1 cup
3. _____ cup = 1 stick of butter
4. _____ cup = 1 pint
5. _____ pint = 1 quart
6. _____ tablespoon = 2 ounces
7. _____ ounces = 1 pound
8. _____ ounces = 1 cup

Using Basic Math Skills
Activity Sheet 1

Directions: Working with a partner or in a small group, solve each problem below and write your answer in the space provided.

1. The recipe you are using calls for 1 cup of butter. How many sticks of butter will you need? _____

2. You need 3 cups of milk for your recipe. When you look in the refrigerator, you find only a new pint container of milk. Is this enough milk? _____

3. The kitchen is running short on milk and you are sent to a nearby grocery store to get 6 gallons of milk. When you arrive, you discover that there are only quart containers of milk in the refrigerator case. How many of these quart containers of milk will you need to get 6 gallons of milk? _____

4. The measuring cup has disappeared from the kitchen and you don't have time to look for it. How many tablespoons of sugar will you need to measure to get 3/4 cup of sugar? _____

5. You have a new measuring cup which you think is not measuring accurately. You know you can trust your old reliable tablespoon. How many tablespoons of water would you measure into the measuring cup to see if it measures 1 cup accurately? _____

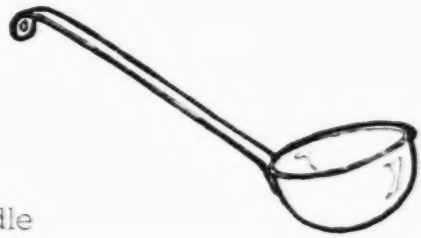
D. Steps of Procedure for Weighing and Measuring Ingredients and Portions

There are many measuring and weighing utensils used in food service operations. Very exact recipes are stated in weights. To measure these weights, certain weighing utensils are used. These are mainly the baker's scale and the portion scale.

Common measures are teaspoons, tablespoons, cups, pints, quarts, and gallons. Scoops or dippers and ladles are used to serve many foods and are also used to control the size of each portion (serving).

Measurement Equipment

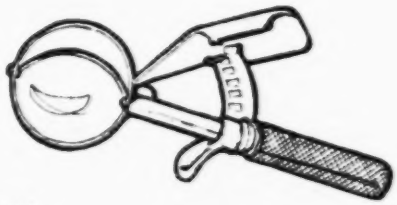
1. Ladles are used to serve soups, stews, gravies, sauces, dressings, cream dishes, etc., when portion control is desired.



Ladle

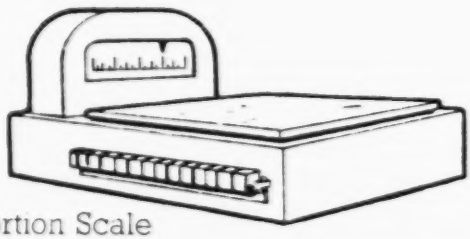
2. Scoops or dippers are also used for portion control. There are various sizes.
   - #8 = 5 oz.
   - #10 = 4 oz.
   - #12 = 3 oz.

   NOTE: The larger the number, the smaller the amount.



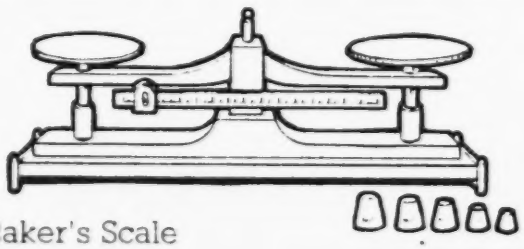
Scoop

3. The portion scale is used for weighing exact food servings measured in ounces (such as a 3 to 5 ounce serving of roast beef). This scale is used to weigh quantities up to 32 ounces (two pounds).



Portion Scale

4. A baker's scale is used for weighing larger amounts of ingredients before mixing.

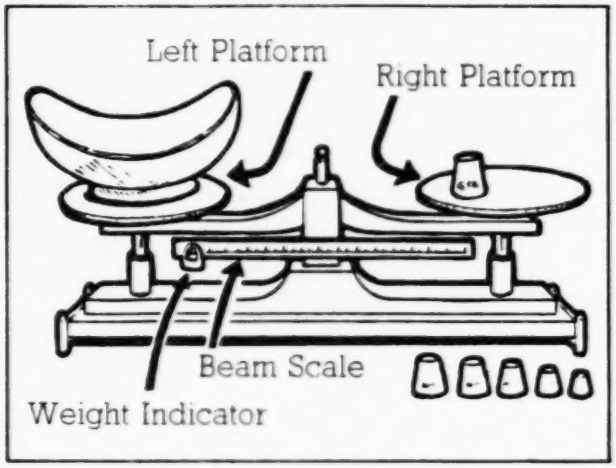


Baker's Scale

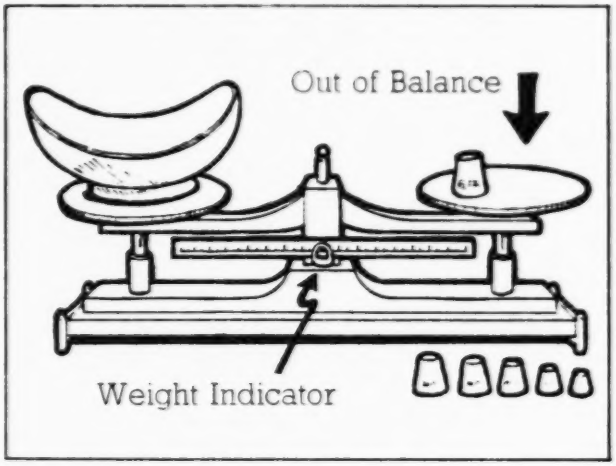
Measuring Ingredients by Using a Baker's Scale

1. On the left-hand platform of the baker's scale is a metal scoop where food is placed to be weighed.

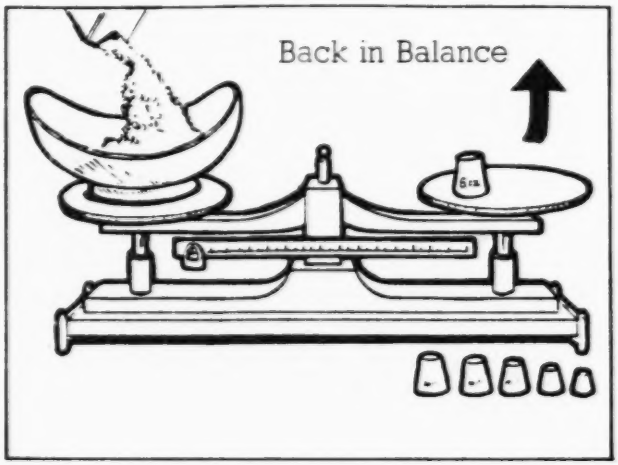
2. On the right-hand platform, a special weight equal to the weight of the scoop is placed to balance the scale.



3. The brass beam scale in front has a weight indicator attached to it. Set this weight at the number of ounces you need to weigh.



4. Add enough powdered eggs to the left-hand platform until the scale is balanced again. You now have 8 ounces of whole eggs.



DO ACTIVITY SHEET 2

Using Basic Math Skills
Activity Sheet 2

Directions: Complete these measuring activities to become more familiar with measuring utensils and equipment.

1. Use liquid measuring cups and water to demonstrate that:
   - 4 cups equal 1 quart
   - 4 quarts equal 1 gallon

2. Using a teaspoon and a tablespoon to measure granulated sugar, determine:
   - How many teaspoons equal 1/3 cup
   - How many tablespoons equal 1/3 cup
   - How many teaspoons equal 2/3 cup
   - How many tablespoons equal 2/3 cup

3. Measure 1/4 cup of brown sugar by packing the sugar down with a spoon and leveling off the excess.

4. Using a portion scale, place wax paper on the scale and add shortening until 4 ounces are measured.

5. Using a baker's scale, weigh the following foods:
   - 8 ounces of dry rice
   - 8 ounces of granulated sugar

E. Steps of Procedure for Converting Standard Recipes

A standard recipe produces a standard yield (amount). Often, the standard yield of a recipe is too great or too small for your needs. This means that the recipe must be converted (changed) to yield the amount needed. Three different concepts will be explained: increasing yields, decreasing yields, and converting mixed measures and weights.

Increasing Yields

1. Determine the standard yield (number of servings on your recipe) and the yield needed to serve your group.

Egg Nog (Serves 60)

3 gal. milk
12 eggs
½ C. vanilla
(Standard yield for this recipe is 60. You want a yield of 300.)

2. Divide the standard yield into the amount you want to serve.

$$60 \overline{)300} \quad 5 \text{ (Amount of Increase)}$$

300 — Yield You Need
60 — Standard Yield

(The amount you need to prepare is 5 times greater than the standard recipe yields.)

3. Multiply each item in the recipe by the number of times the recipe needs to be increased.

3 gal. milk x 5 = 15 gal. milk
12 eggs x 5 = 60 eggs
½ C. vanilla x 5 = 2½ C. vanilla

Decreasing Yields

If the amount you want to serve is smaller than the standard recipe yield, you will need to prepare a part or fraction of the standard yield.

1. Determine the standard recipe yield and the yield needed.

Decrease Recipe to Make 4 Pans of Cake

White Cake (Standard Yield: 6 cakes)

9 C. flour
3 eggs
1 T. vanilla
3 C. oil
2 C. milk

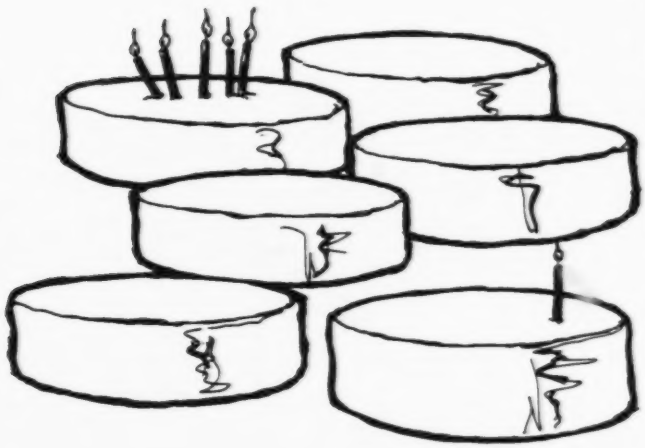
You Need Four Cakes

2. Divide the amount you need by the standard recipe yield.

$$\frac{\text{Amount Needed: } 4 = 2}{\text{Standard Yield: } 6 = 3}$$

3. Multiply each ingredient by this fraction to determine the amount of each ingredient to use to serve your group.

9 C. flour x ⅔ = 6 C. flour
3 eggs x ⅔ = 2 eggs
1 T. vanilla x ⅔ = ⅔ T. vanilla
3 C. oil x ⅔ = 2 C. oil
2 C. milk x ⅔ = 1⅓ C. milk



Converting Mixed Weights and Measures

When converting recipes with mixed weights and measures, you will sometimes have to convert pounds and ounces. It is necessary to change pound amounts to ounces before you start to increase or decrease a recipe. This will allow you to work with the same type of measures, in this case, ounces.

1. Change pounds to ounces by multiplying the number of pounds by 16 because there are 16 ounces in a pound. Example: For a recipe, you need to decrease 1 lb. 8 oz. of flour by ¾.

1 lb. 8 oz.

1 lb. equals 16 oz.

2. Add the rest of the ounces in the original amount.

$$\begin{array}{r} 16 \text{ oz.} \\ +\ 8 \text{ oz.} \\ \hline 24 \text{ oz.} \end{array}$$

3. Convert the ounces to the yield needed. (In this case, we are decreasing by ¾.)

$24 \text{ oz.} \times \frac{3}{4} = 18 \text{ oz.}$

4. Change the ounces back to pounds by dividing by 16. (The remainder will be the number of ounces left over.)

$$16 \text{ oz.} \overline{)\ 18 \text{ oz.}}$$

1 lb. 2 oz.

16

2

DO SKILL SHEET 2

Using Basic Math Skills
Skill Sheet 2

Directions: Convert the following recipes:

Show Your Work

1. Recipe serves 20
   Convert to serve 10

   5 quarts flour: _____
   2 T. salt: _____
   4 pounds shortening: _____
   3 cups water: _____

2. Recipe serves 20
   Convert to serve 40

   5 quarts flour: _____
   2 T. salt: _____
   4 pounds shortening: _____
   3 cups water: _____

3. Convert the following amounts:

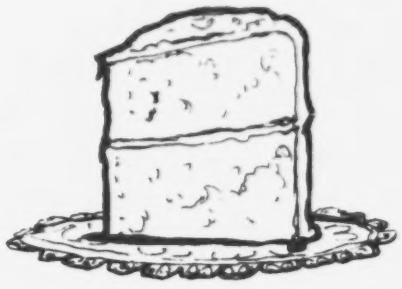
   A. 2 lbs. 8 oz. = _____ oz.
   B. 36 oz. = _____ lb. _____ oz.

F. Steps of Procedure for Costing Recipes

When a recipe is used in restaurants, the cost of all of the ingredients is totaled and the cost per portion is figured. The cost per portion helps determine how much should be charged for the item on the menu.

Angel Food Cake
Yield: 60 portions

Ingredients	Quantity	Market Price
Egg Whites	4 lb.	$.21 per lb.
Sugar	3 lb.	.16 per lb.
Vanilla	1 oz.	.23 per oz.
Almond Flavor	½ oz.	.14 per oz.
Cake Flour	1 lb.	3.20 per lb.
Cream of Tartar	1 oz.	.14 per oz.



1. To cost a recipe, first multiply the quantity of each ingredient by the market price to determine the cost of each ingredient.

Ingredients	Quantity	Market Price	Cost
Egg Whites	4 lb. x	$.21 per lb.=	$.84
Sugar	3 lb. x	.16 per lb.=	.48
Vanilla	1 oz. x	.23 per oz.=	.23
Almond Flavor	½ oz. x	.14 per oz.=	.07
Cake Flour	1 lb. x	3.20 per lb.=	3.20
Cream of Tartar	1 oz. x	.14 per oz.=	.14

2. Add the costs of each of the ingredients together to get the total cost.

Total Cost: $4.96

3. Divide the total cost by the yield to determine the cost per portion.

$$60 \overline{)\,4.96} \quad .08$$
$$480$$
$$16$$

DO SKILL SHEET 3

Using Basic Math Skills
Skill Sheet 3

Directions: Figure the cost per portion for this recipe for Cheddar Cheese Rolls.

Cheddar Cheese Rolls

Ingredients	Quantity	Market Price	Cost
Water	1 lb. x	No Cost	_____
Dry Yeast	4 oz. x	.07 per oz.	_____
Sugar	6 oz. x	.32 per lb.	_____
Salt	2 oz. x	.01 per oz.	_____
Milk Solids	6 oz. x	.40 per lb.	_____
Eggs	1 lb. x	.42 per lb.	_____
Butter	6 oz. x	.48 per lb.	_____
Flour	6 lb. x	.13 per lb.	_____
Cheddar Cheese	1 lb. 8 oz. x	.40 per lb.	_____
		Total Cost:	_____

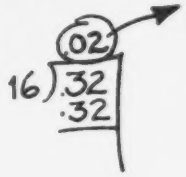
Yield: 24 rolls Cost Per Portion: _____

NOTE: When a quantity is given in ounces and the market price is stated per pound, you must figure the market price per ounce before you can figure the cost per portion. Since there are 16 ounces in a pound:

PRICE PER POUND ÷ 16 = PRICE PER OUNCE

For Example:

INGREDIENT	QUANTITY	MARKET PRICE	COST
Sugar	6 oz. x	.02 per oz.	=.12
		or .32 per lb.	

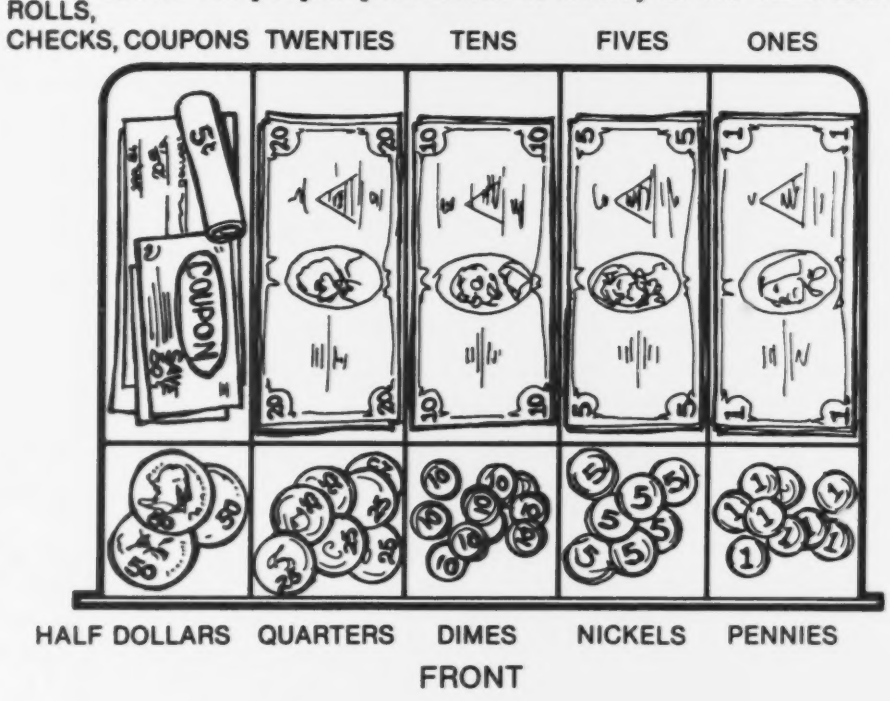


G. Steps of Procedure for Cashiering

Cashiering responsibilities involve many aspects of handling money such as receiving money, returning the proper change, and figuring tips. Basic math skills are a very important part of cashiering.

Placing Money in the Cash Drawer

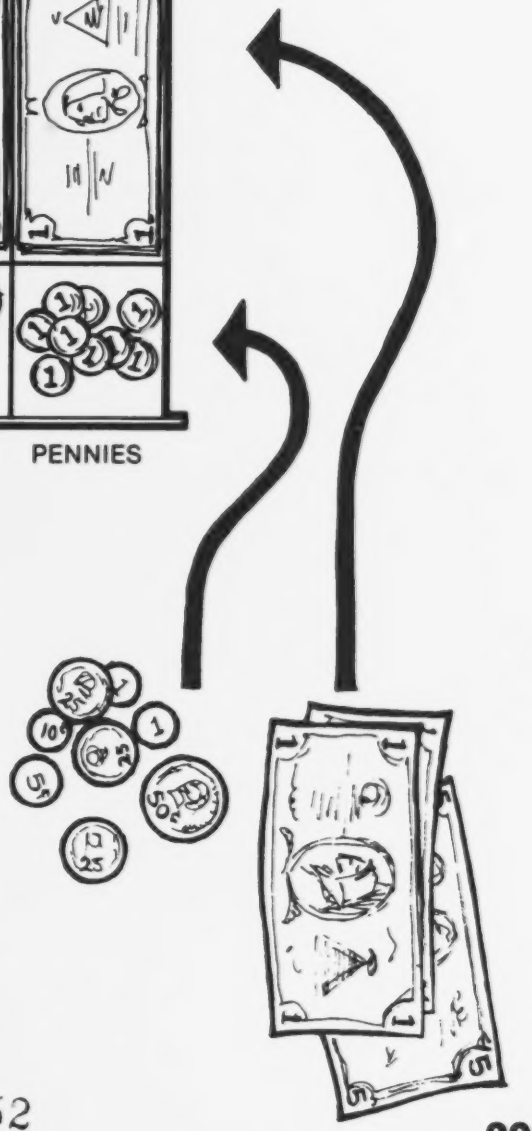
The cash drawer has a definite arrangement for bills and coins. This diagram shows the proper placement of money in the cash drawer.



1. Keep the cash register drawer closed except when a sale is rung up.

2. Put coins of the same value (denomination) into their proper place in the cash drawer.

3. Put paper money (currency) of the same value (denomination) into its proper place in the drawer. (Be sure they all face the same direction.)



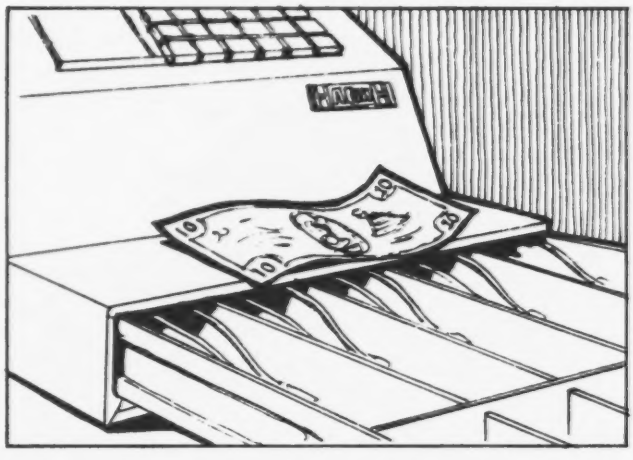
Making Change

A basic knowledge of making change is important when cashiering. Practice counting back change to the customer by giving the smallest coins and bills first. Speak out loud to the customer by starting with the amount of sale and working toward the amount received.

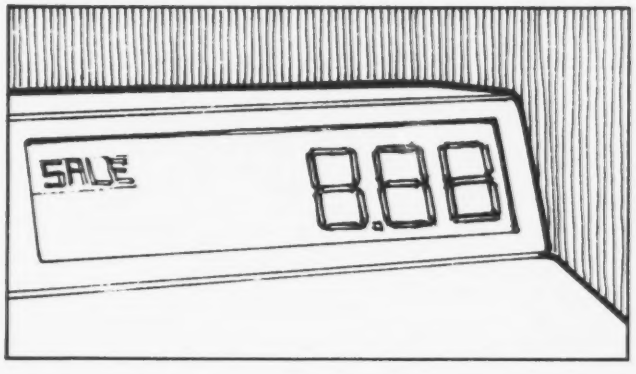
1. State the total of the sale and the amount received from the customer.

2. Place the customer's money on the cash register change plate (ledge).

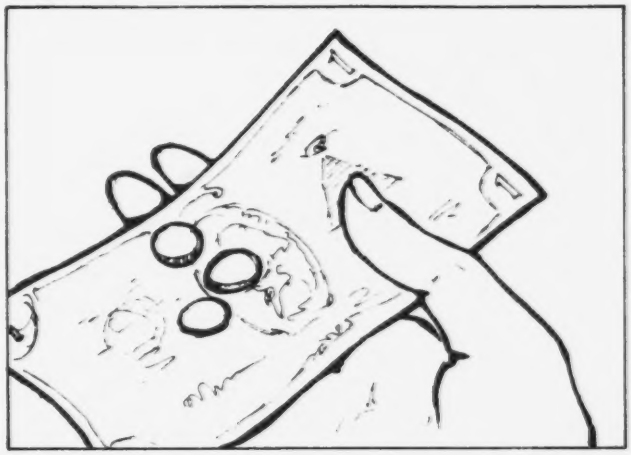
NOTE:
Do not place the currency in the cash drawer until change has been made to the customer.



3. Record the sale on the sales register.

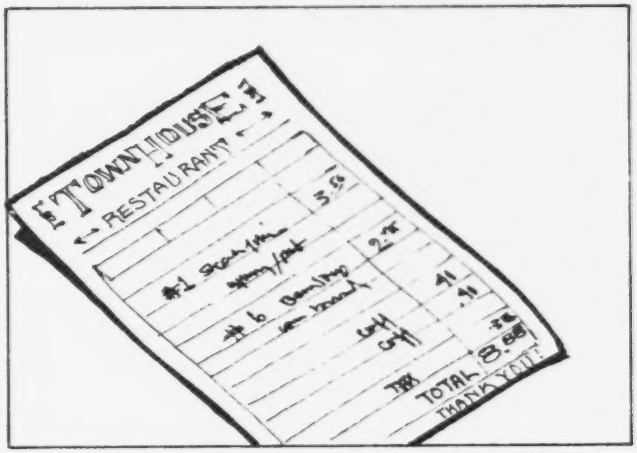


4. Return change by using the smallest number of coins and bills possible from the drawer. (Start with the amount of the sale and work toward the amount received.)



5. Deliver the change to the customer.

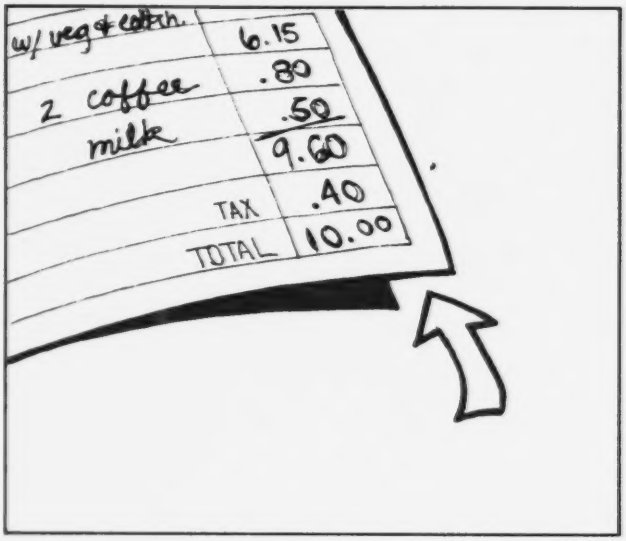
6. Give the customer a receipt if necessary and thank the customer.



Figuring Gratuity

Gratuity is also known as tipping in food service. This is an additional amount of money left by customers for the quality of service they receive. Fifteen percent is the generally accepted amount for tipping. Tipping is usually optional on the part of the customer. For a large group though, tipping is usually automatically figured by the cashier and added to the total bill. The following example shows how gratuity is figured on the 15% basis.

1. Determine the total amount of the ticket.



2. Determine the amount of the tip (gratuity) by calculating 15% of the total amount of the ticket.

15% of $10.00

- Change 15% to a decimal by moving the decimal point two places to the left. Then drop the percent sign.

15% = .15

- Multiply the ticket amount by .15 to determine the amount of the tip (gratuity).

```
  10.00
 x .15
------
  5000
 1000
------
 1.5000 or $1.50 TIP
```

DO SKILL SHEET 4

DO SKILL SHEET 5

Using Basic Math Skills
Skill Sheet 4

Directions: Write the correct number in each box to indicate how many of each type of coin and bill should be given to a customer as change. (Start with the amount of the ticket and work toward the amount received.)

Sales Number	Amount of Ticket	Amount Received	Coins					Bills		
			1¢	5¢	10¢	25¢	50¢	$1	$5	$10
A.	$1.98	$5.00	2					3		

Sales Number	Amount of Ticket	Amount Received	Coins					Bills		
			1¢	5¢	10¢	25¢	50¢	$1	$5	$10
1.	$9.15	$20.15								
2.	$24.95	$50.00								
3.	$12.40	$15.00								
4.	$32.41	$40.00								
5.	$15.25	$20.25								

Directions: Determine the amount of a 15% gratuity (tip) for each of the following tickets.

Example: $20.00 x .15 = $3.00

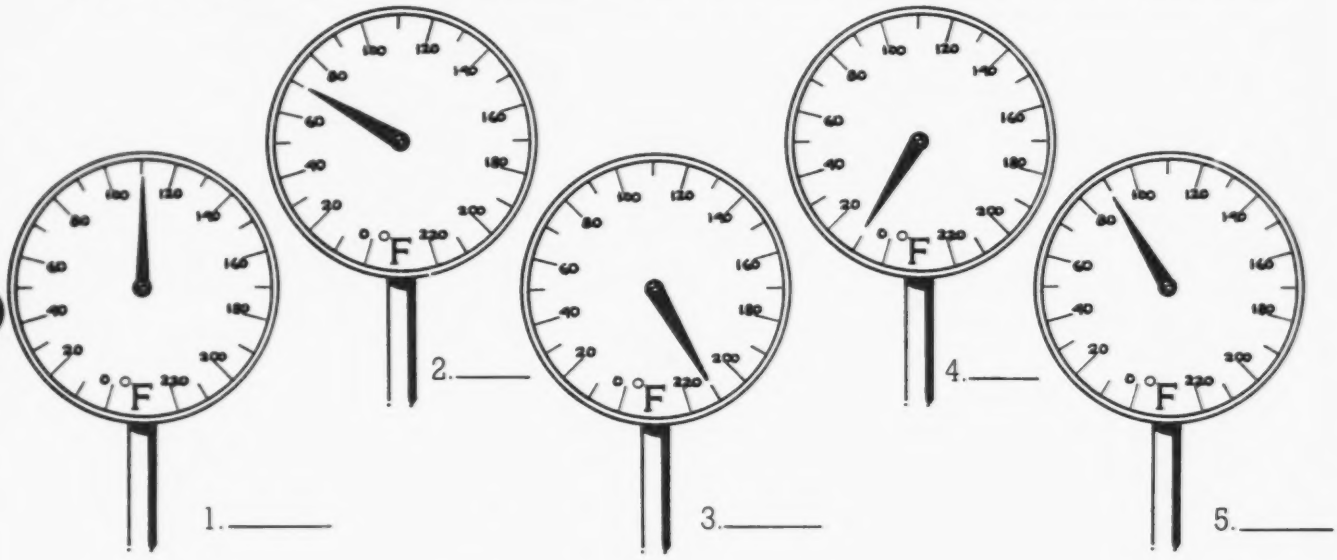
	TICKET	TIP
6.	$12.00	_____
7.	$15.00	_____
8.	$24.00	_____
9.	$50.40	_____
10.	$42.30	_____

Using Basic Math Skills
Skill Sheet 5

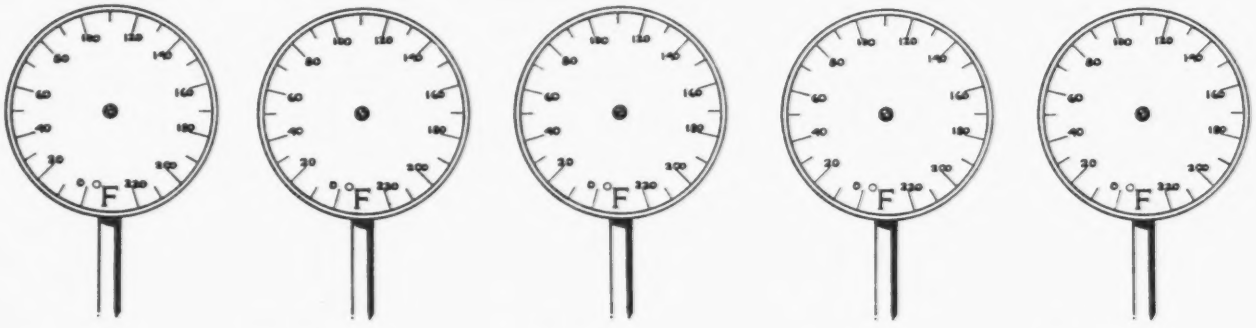
The pocket thermometer is often used by food service workers. It is used to determine the temperature of meats, vegetables, sauces, pastries, etc., It is important that you know how to read the measurements on this thermometer.

Each long line on the thermometer measures 20 degrees. Each small line on the thermometer measures 10 degrees.

Directions: Read the following thermometers and record the temperatures they show.



Directions: Look at the temperature shown under each of the thermometers and mark that temperature on the thermometer.



1. 25°
2. 85°
3. 60°
4. 190°
5. 140°

Using Basic Math Skills
Unit Review

Put an x in the box of the correct answer for each statement.

1. _____ teaspoon equals 1 tablespoon
   ☐ 2 ☐ 3 ☐ 4 ☐ 5

2. _____ tablespoons equal 1 cup
   ☐ 4 ☐ 8 ☐ 12 ☐ 16

3. _____ cups equal 1 stick of butter
   ☐ ¼ ☐ ½ ☐ ¼ ☐ 1

4. An example of a portion utensil is a:
   - ☐ Baker's Scale
   - ☐ Scoop (dipper)
   - ☐ Bowl
   - ☐ Cash Drawer

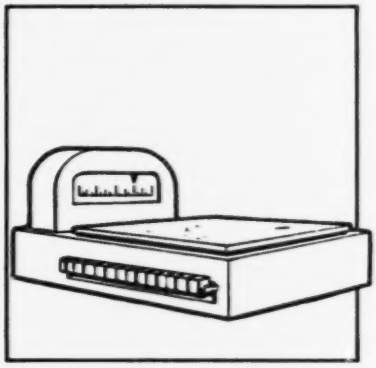
5. Decrease the following recipe. It now serves 20 portions; convert it to serve 10 portions.
   A. 5 quarts flour: _____
   B. 2 T. salt: _____
   C. 3 pounds shortening: _____
   D. 4 c. water: _____

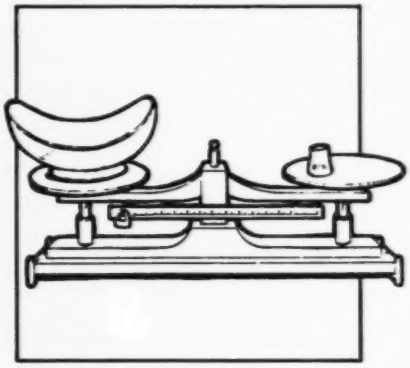
6. Increase the same recipe to serve 40 portions.
   A. 5 quarts flour: _____
   B. 2 T. salt: _____
   C. 3 pounds shortening: _____
   D. 4 c. water: _____

7. Figure a 15% gratuity for the following situation. Your bill for dinner was $24.00. What should you leave for the gratuity?
   _____

8. It cost $18.00 to buy all of the ingredients for an Angel Food cake. The cake will yield 12 portions. What will the portion cost be?
   _____

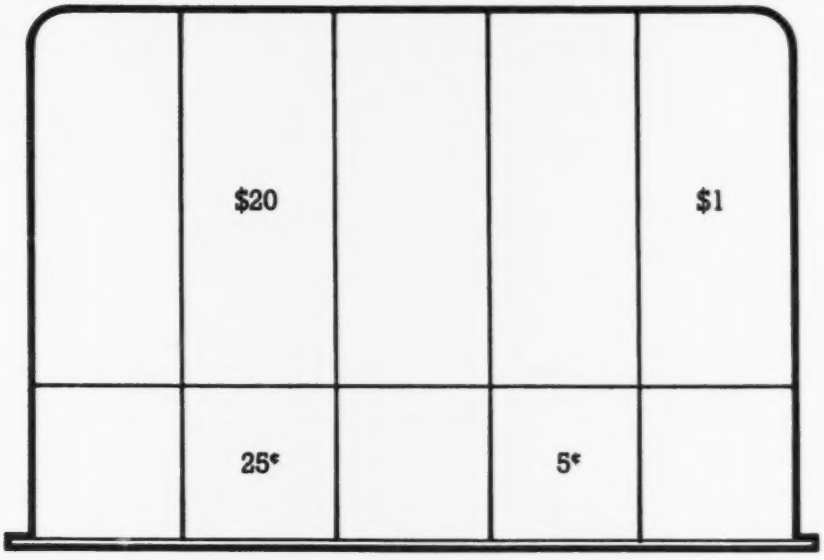
9. Identify the following utensils.



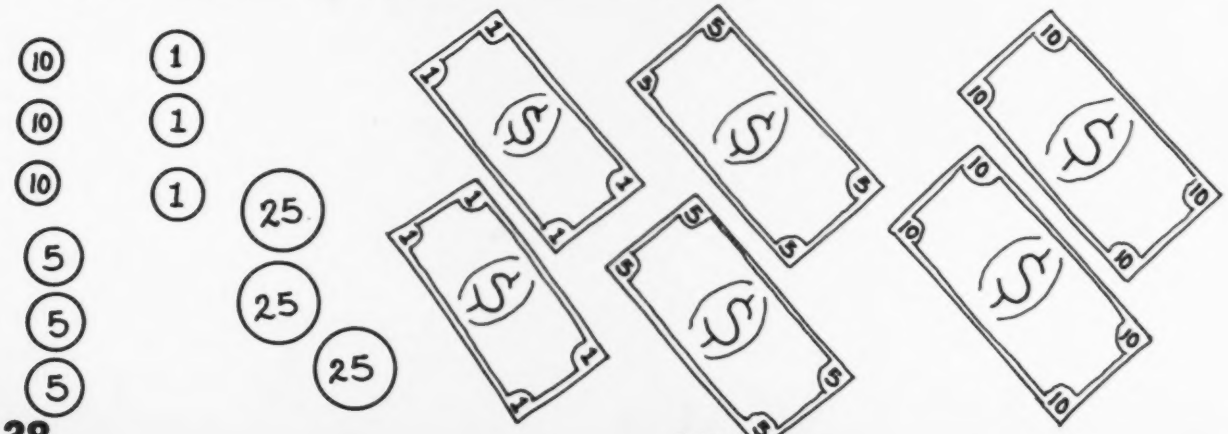


A._____ B._____ C._____

10. Label the compartments of this cash drawer to indicate the coins or bills which belong in each section.



11. Circle the coins and bills which should be given as change when a customer gives you a ten dollar bill to pay for a meal costing $7.87.



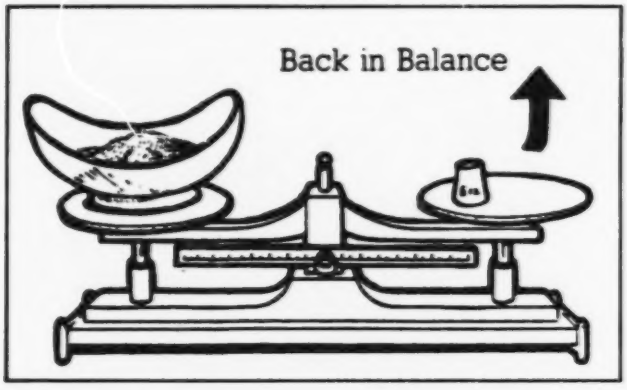
12. Convert the following mixed weight to ounces.

    3 lb. 2 oz. = _____ oz.

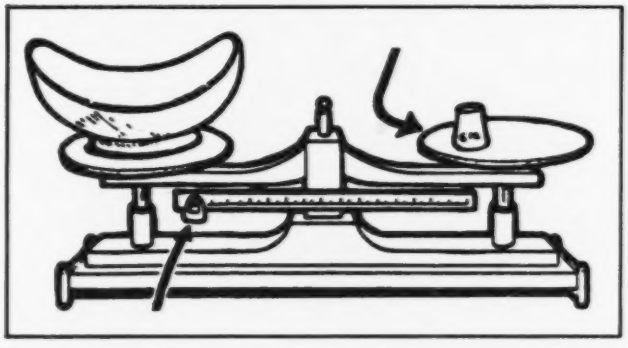
13. Match each abbreviation with the correct term by writing the correct letter in each blank.

_____ lb.	A. tablespoon
_____ t.	B. fluid ounce
_____ T	C. teaspoon
_____ c.	D. cup
_____ oz.	E. ounce
_____ fl. oz.	F. pound

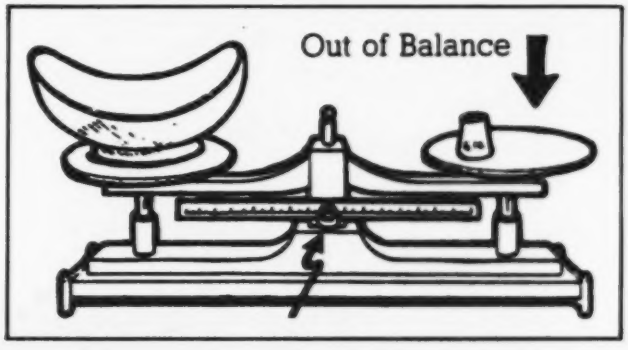
14. Place these illustrated steps for using a baker's scale to weigh eggs in the correct order by numbering them A, B, and C.



☐ Add eggs until the desired weight is reached.



☐ Balance the empty scale.



☐ Move the weight indicator to the desired weight.

Using Basic Math Skills
Performance Checklist

Student _____ **has successfully performed the following steps of procedure.**

	Yes	No	Comments
Recognizing Abbreviations/Equivalent Measurements			
1. Recognized cooking and measuring abbreviations			
2. Recognized equivalent measurement			
Weighing and Measuring Ingredients and Portions			
1. Recognized and used proper weighing and measuring equipment			
2. Measured ingredients with a Baker's Scale			
Converting Standard Recipes			
1. Followed procedure for increasing yields			
2. Followed procedure for decreasing yields			
3. Properly converted mixed weights and measures			
Costing Recipes			
1. Followed procedure to determine a per portion cost			
Cashiering			
1. Properly placed money in a cash drawer			
2. Counted back change to customer in the correct order			
3. Figured correct amount of gratuity			

Satisfactory - Should Move On ☐
Repeat This Unit ☐

_____
Student's Signature/Date

_____
Instructor's Signature/Date

SN-91-S

SUPPLEMENTARY UNITS

Restaurant/Institutional Food Service

Preparing Foods and Interpreting Recipes

Instructional Materials Laboratory
10 Industrial Education Building
University of Missouri-Columbia
314/882-2883

Preparing Foods and Interpreting Recipes
Introduction

We often use the term cooking to refer to food preparation in general, but cooking is only one part of food preparation. Many tasks must be completed before food can be cooked. Understanding and interpreting a recipe is the first step.

A recipe must be followed carefully and correctly in order for the food to turn out. Using a recipe correctly depends on knowledge and skill in the following areas: interpreting recipes, selecting ingredients, deciding which equipment to use, using the correct oven temperature and/or degree of range heat, understanding terms in the recipe, measuring ingredients, following directions, applying basic principles of cooking, and serving food at the right time and temperature.

This unit will focus on interpreting recipes, synchronizing meal preparation, specific preparation methods, and guidelines for following recipes.

Unit Objectives

After completion of this unit, you should be able to interpret recipes and demonstrate the appropriate preparation procedures.

Specific Objectives

After completion of this unit, you should be able to specifically:

1. Interpret recipes.
2. Coordinate food preparation times.
3. Identify food preparation methods.
4. Follow recipes.

Are You Ready?

Check the statement which is true for you.

☐ I can do the tasks and I am ready to do the Performance Checklist. **SEE YOUR INSTRUCTOR**	☐ I want to study the information in this unit before doing the Performance Checklist **TURN THE PAGE AND BEGIN**

Preparing Foods and Interpreting Recipes

A. Terms and Equipment for Preparing Foods and Interpreting Recipes

Terms

1. Cooking time - length of time a food needs to be cooked
2. Directions - instructions for preparing a food dish
3. Ingredients - foods, spices, and flavorings which are combined to produce a specific food dish
4. Interpreting - understanding terms and procedures
5. Portion - individual serving
6. Preheating - letting the oven reach the correct temperature before putting the food in to be cooked
7. Pre-preparation - tasks done to food to make it ready for cooking or further preparation
8. Production schedule - preparing food so that it is all finished at the same time
9. Recipe - list of ingredients and instructions for preparing a certain food
10. Standardized recipes - a tested recipe which will produce the same each time it is used
11. Yield - quantity or amount that the recipe will produce

B. Guidelines for Interpreting Recipes

A recipe is a set of exact instructions for preparing food. When a recipe is followed, the results should be the same, no matter who does the cooking. Recipes tell what supplies and amounts are needed and how ingredients will be combined and cooked. Recipes used by food service operations are standardized. Standardized recipes should include the following information: name of recipe, yield, portion, ingredients, preparation instructions/methods, utensils, and special notes. An example of a standardized recipe is given below.

Recipe for Spanish Chicken

Yield: 72 pounds or 100 portions

Portion Size: ¼ Chicken and 4 oz. sauce

Equipment/Utensils: fry pan, sauce pot, deep-fat fryer, roasting pan

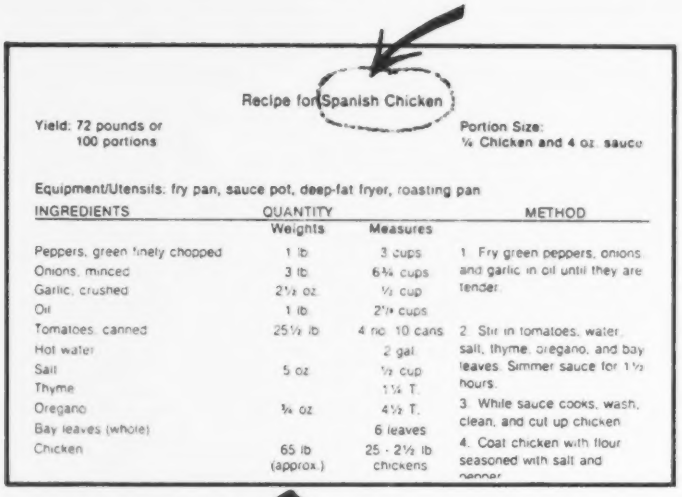
INGREDIENTS	QUANTITY		METHOD
	Weights	Measures	
Peppers, green finely chopped	1 lb.	3 cups	1. Fry green peppers, onions, and garlic in oil until they are tender.
Onions, minced	3 lb.	6¾ cups	
Garlic, crushed	2½ oz.	½ cup	
Oil	1 lb.	2⅛ cups	
Tomatoes, canned	25½ lb.	4 no. 10 cans	2. Stir in tomatoes, water, salt, thyme, oregano, and bay leaves. Simmer sauce for 1½ hours.
Hot water		2 gal.	
Salt	5 oz.	½ cup	
Thyme		1¼ T.	
Oregano	¾ oz.	4½ T.	3. While sauce cooks, wash, clean, and cut up chicken.
Bay leaves (whole)		6 leaves	
Chicken	65 lb. (approx.)	25 - 2½ lb. chickens	4. Coat chicken with flour seasoned with salt and pepper.
Flour	1 lb.	2½ qt.	
Salt	5 oz.	½ cup	5. Fry chicken in deep-fat fryer at 360° F for about 10 minutes or until golden brown.
Pepper		1½ T.	
			6. Arrange in roasting pans and cover with sauce.
			7. Cover pans and bake at 325° F for 1¼ hours or until tender.
			8. Serve with sauce.

NOTE: Serve over spaghetti.

Adapted from: **Quantity Food Techniques** by Pepper, Pratt, and Winnick

Preparing Foods and Interpreting Recipes

1. Locate the recipe you need. Read the name carefully in case your food service operation has several similar recipes.



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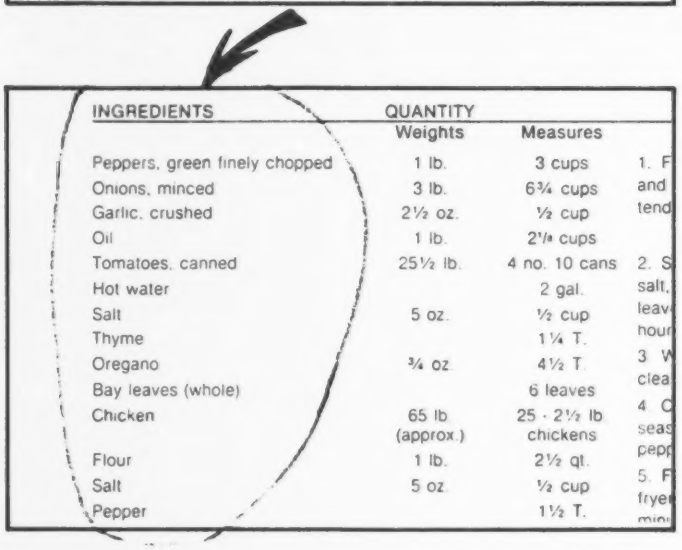
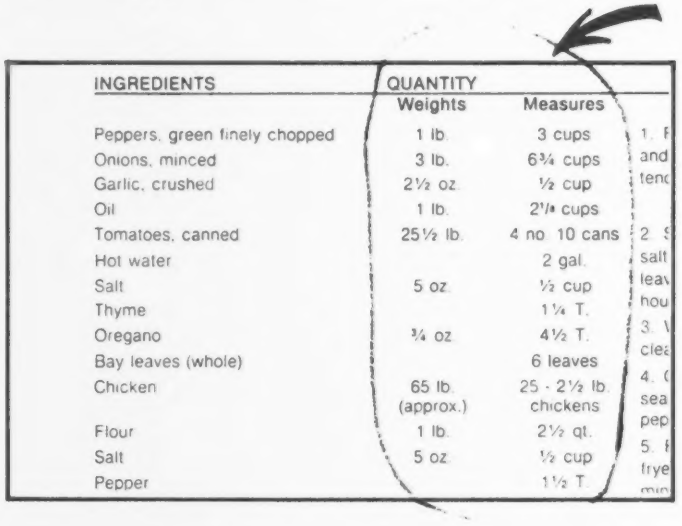
Hot water		2 gal.	
Salt	5 oz.	½ cup	
Thyme		1¼ T.	
Oregano	¾ oz.	4½ T.	3. While sauce cooks, wash, clean, and cut up chicken.
Bay leaves (whole)		6 leaves	
Chicken	65 lb. (approx.)	25 - 2½ lb. chickens	4. Coat chicken with flour seasoned with salt and pepper.

2. Identify the ingredients needed. The ingredients are listed in the order and form that they are used.



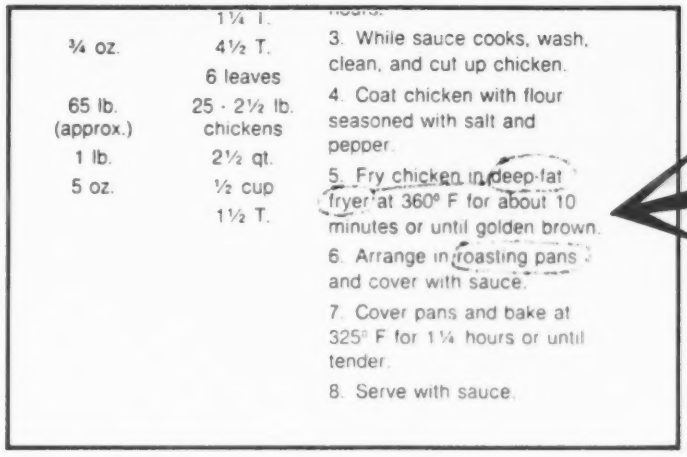
INGREDIENTS	QUANTITY		
	Weights	Measures	
Peppers, green finely chopped	1 lb.	3 cups	1. F
Onions, minced	3 lb.	6¾ cups	and
Garlic, crushed	2½ oz.	½ cup	tend
Oil	1 lb.	2⅛ cups	
Tomatoes, canned	25½ lb.	4 no. 10 cans	2. S
Hot water		2 gal.	salt,
Salt	5 oz.	½ cup	leav
Thyme		1¼ T.	hour
Oregano	¾ oz.	4½ T.	3. W
Bay leaves (whole)		6 leaves	clea
Chicken	65 lb. (approx.)	25 - 2½ lb. chickens	4. C
Flour	1 lb.	2½ qt.	seas
Salt	5 oz.	½ cup	pepp
Pepper		1½ T.	5. F
			frye
			min

3. Determine the ingredient quantities (amounts). Quantities of ingredients are listed by weight (1 lb.), volume (2 gal.), or number (6 leaves).
NOTE: Recipes often use abbreviations for weights and measures. (A list of such abbreviations is given in the Basic Math Skills unit.)



INGREDIENTS	QUANTITY		
	Weights	Measures	
Peppers, green finely chopped	1 lb.	3 cups	1. F
Onions, minced	3 lb.	6¾ cups	and
Garlic, crushed	2½ oz.	½ cup	tend
Oil	1 lb.	2⅛ cups	
Tomatoes, canned	25½ lb.	4 no. 10 cans	2. S
Hot water		2 gal.	salt
Salt	5 oz.	½ cup	leav
Thyme		1¼ T.	hou
Oregano	¾ oz.	4½ T.	3. W
Bay leaves (whole)		6 leaves	clea
Chicken	65 lb. (approx.)	25 - 2½ lb. chickens	4. C
Flour	1 lb.	2½ qt.	sea
Salt	5 oz.	½ cup	pep
Pepper		1½ T.	5. F
			frye
			min

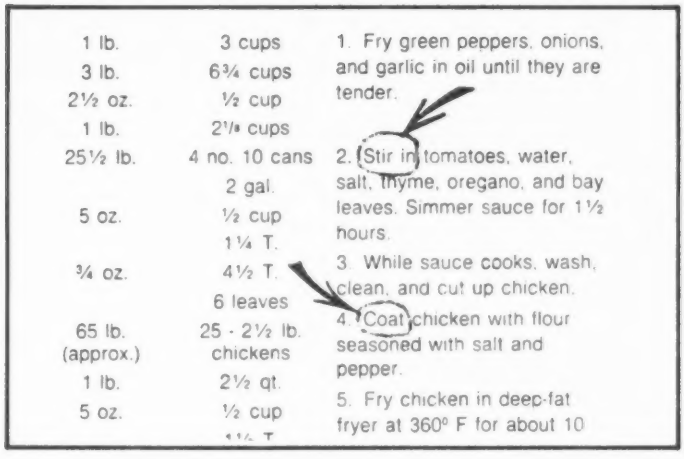
4. Identify any special equipment/utensils needed. The utensils, tools, and other equipment needed in preparing the dish are usually listed in the recipe.



	1¼ T.
¾ oz.	4½ T.
	6 leaves
65 lb. (approx.)	25 - 2½ lb. chickens
1 lb.	2½ qt.
5 oz.	½ cup
	1½ T.

3. While sauce cooks, wash, clean, and cut up chicken.
4. Coat chicken with flour seasoned with salt and pepper.
5. Fry chicken in deep-fat fryer at 360° F for about 10 minutes or until golden brown.
6. Arrange in roasting pans and cover with sauce.
7. Cover pans and bake at 325° F for 1¼ hours or until tender.
8. Serve with sauce.

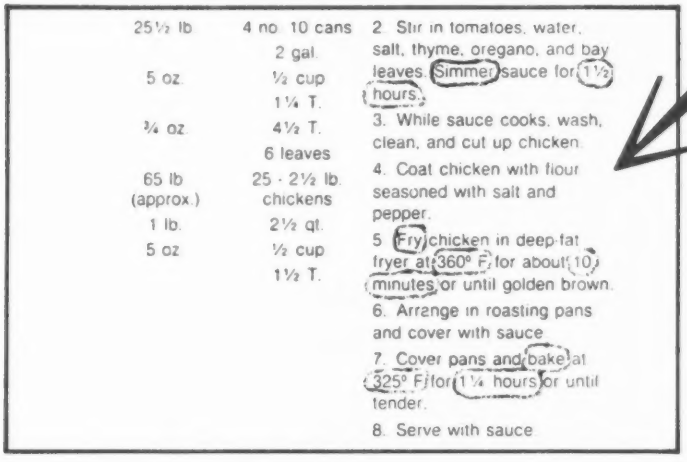
5. Study the methods for combining and preparing ingredients. Step-by-step instructions will be given. Note any preliminary steps (such as preheating oven or greasing pan) which are necessary.



1 lb.	3 cups
3 lb.	6¾ cups
2½ oz.	½ cup
1 lb.	2¼ cups
25½ lb.	4 no. 10 cans
	2 gal.
5 oz.	½ cup
	1¼ T.
¾ oz.	4½ T.
	6 leaves
65 lb. (approx.)	25 - 2½ lb. chickens
1 lb.	2½ qt.
5 oz.	½ cup

1. Fry green peppers, onions, and garlic in oil until they are tender.
2. Stir in tomatoes, water, salt, thyme, oregano, and bay leaves. Simmer sauce for 1½ hours.
3. While sauce cooks, wash, clean, and cut up chicken.
4. Coat chicken with flour seasoned with salt and pepper.
5. Fry chicken in deep-fat fryer at 360° F for about 10

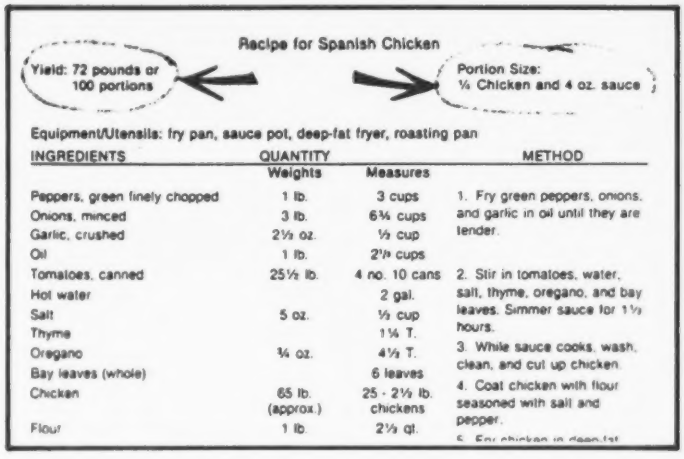
6. Identify the cooking times, temperatures, and methods to be used.



25½ lb.	4 no. 10 cans
	2 gal.
5 oz.	½ cup
	1¼ T.
¾ oz.	4½ T.
	6 leaves
65 lb. (approx.)	25 - 2½ lb. chickens
1 lb.	2½ qt.
5 oz.	½ cup
	1½ T.

2. Stir in tomatoes, water, salt, thyme, oregano, and bay leaves. Simmer sauce for 1½ hours.
3. While sauce cooks, wash, clean, and cut up chicken.
4. Coat chicken with flour seasoned with salt and pepper.
5. Fry chicken in deep-fat fryer at 360° F for about 10 minutes or until golden brown.
6. Arrange in roasting pans and cover with sauce.
7. Cover pans and bake at 325° F for 1¼ hours or until tender.
8. Serve with sauce.

7. Determine the yield (number of servings or pieces) which the recipe will produce. The recipe will usually state the portion (serving) size also.



Recipe for Spanish Chicken

Yield: 72 pounds or 100 portions

Portion Size: ¼ Chicken and 4 oz. sauce

Equipment/Utensils: fry pan, sauce pot, deep-fat fryer, roasting pan

INGREDIENTS	QUANTITY		METHOD
	Weights	Measures	
Peppers, green finely chopped	1 lb.	3 cups	1. Fry green peppers, onions, and garlic in oil until they are tender.
Onions, minced	3 lb.	6¾ cups	
Garlic, crushed	2½ oz.	½ cup	
Oil	1 lb.	2⅛ cups	
Tomatoes, canned	25½ lb.	4 no. 10 cans	2. Stir in tomatoes, water, salt, thyme, oregano, and bay leaves. Simmer sauce for 1½ hours.
Hot water		2 gal.	
Salt	5 oz.	½ cup	
Thyme		1¼ T.	
Oregano	¾ oz.	4½ T.	3. While sauce cooks, wash, clean, and cut up chicken.
Bay leaves (whole)		6 leaves	
Chicken	65 lb. (approx.)	25 - 2½ lb. chickens	4. Coat chicken with flour seasoned with salt and pepper.
Flour	1 lb.	2½ qt.	5. Fry chicken in deep fat

DO SKILL SHEETS 1 AND 2

Preparing Foods and Interpreting Recipes
Skill Sheet 1

Directions: Label the parts of the recipe below by writing the following words in the correct blank lines.

PORTION NOTE QUANTITY UTENSILS/EQUIPMENT YIELD INGREDIENTS INSTRUCTIONS/METHODS

Meat Sauce

1. _____: 1 gal.

2. _____: 30 servings-4 oz. each

3. _____: french knife, saute pan, spoon, sauce pan

4. _____	5. _____	6. _____
Olive Oil	½ c.	1. Saute onions for 10 minutes.
Onions, chopped	1 lb.	2. Remove onions to sauce pot
Beef, ground	2 lb.	3. In same pan, saute ground beef.
Tomatoes, crushed	1 no.-10 can	4. Pour off grease and add beef to sauce pot.
Garlic	1 T.	5. Place all ingredients in saucepot. Stir and simmer at 200° F for 4 hours.
Basil leaves	1 T.	6. Salt and pepper to taste.

7. _____ : Serve on spaghetti

Preparing Foods and Interpreting Recipes
Skill Sheet 2

Directions: Study the recipe below. Use the recipe to answer the following questions.

Recipe for Ham Loaf

Yield: 50 portions
5 pans (5 x 9 inches)

Portion Size: 4 oz. slices

Equipment/Utensils: bowl, mixer, 5 (5 x 9 inch) loaf pans

INGREDIENTS	QUANTITY		METHOD
	Weights	Measures	Preheat oven to 350° F
Ground fresh pork	4 lb.	8 c.	**Combine:** meats, milk, beaten eggs, black pepper, and bread crumbs.
Ground cured ham	5 lb.	10 c.	
Ground beef	5 lb.	10 c.	**Blend:** all ingredients on low speed of mixer until ingredients are blended. Do not overmix.
Milk	1 qt.	4 c.	
Eggs, beaten	14 eggs	3 c.	**Press:** mixture into 5 - (5 x 9 in.) loaf pans, 3 lb. 8 oz. per pan.
Black pepper	1 lb. 8 oz.	2 t.	
Bread crumbs	1 lb.	4 c.	**Bake:** at 350° F for 1-1½ hours.
			Cut: 10 slices per pan.

Note: Glaze may be added during last 30 minutes of baking.

1. What is the yield of this recipe? _____
2. What size should the portions be? _____
3. What is the name of the recipe? _____
4. What are the ingredients? _____
5. What quantity of milk is needed? _____
6. What special utensils and equipment are needed? _____
7. How long should the food be cooked? _____
8. What temperature should be used? _____
9. How would you perform the following tasks?

   Preheat: _____

   Blend: _____

C. Guidelines for Planning a Production Schedule

In order to have all of the food items for a meal ready to serve at the correct time, careful planning of the food preparation is necessary. Study the menu and general guidelines below to see how preparation of a meal should be organized.

Menu

Breaded Fried Steak
Mashed Potatoes
Cooked Peas / Carrots
Tossed Salad

1. Make a list of things to do to prepare the meal.

Get out utensils and equipment

Steak
- Thaw steak
- Prepare to cook
- Cook

Potatoes
- Peel
- Cook
- Mash

Vegetables
- Cook

Salad
- Prepare ingredients
- Toss salad - 5 minute

Put food into serving dishes

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2. Estimate the cooking and preparation time for each item on the list.

Get out utensils and equipment

Steak
- Thaw steak - 1 day in refrigerator
- Prepare to cook - 15 minutes
- Cook - 20 minutes

Potatoes
- Peel - 10 minutes
- Cook - 20 minutes
- Mash - 5 minutes

Vegetables
- Cook - 10 minutes

Salad
- Prepare ingredients - 20 minutes
- Toss salad - 5 minutes (may be prepared ahead of time)

Put food into serving dishes - 10 minutes

3. Determine the order in which items should be prepared.

   - Prepare any foods that can be stored. Avoid preparing foods so far ahead of time that they will not be served at top quality.
   - Prepare foods which require the longest time first.
   - Do more than one thing at the same time if possible. (For example, mash potatoes while the vegetables are cooking.)

Thaw steak
Prepare salad and refrigerate
Get out utensils and equipment
Prepare steak to cook / Peel potatoes
Cook potatoes
Cook steak
Cook vegetables
Mash potatoes
Put food into serving dishes

Preparing Foods and Interpreting Recipes

4. Make a work schedule by listing all of the preparation and cooking times in the order each item must be done.

   - Organize your work schedule so there is enough time to prepare each item.
   - Organize your time so that you can complete all foods by the time they are needed.

Day before - thaw steak

4:00 - Prepare salad and refrigerate

5:00 - Get out utensils and equipment
5:05 -
5:10 -
5:15 - Prepare steak to cook / Peel potatoes
5:20 -
5:25 - Cook potatoes
5:30 - Cook steak
5:35 -
5:40 - Cook vegetables
5:45 - Mash potatoes
5:50 - Put food into serving dishes
5:55 -
6:00 - Serve food

5. Reschedule if the list shows a conflict (more than one item is listed at the same time, but the items cannot be done together). Look at the conflicting items and decide whether one of them can be done at a different time.

Day before - thaw steak

4:00 - Prepare salad and refrigerate
4:50 -
5:00 - Get out utensils and equipment
5:05 -
5:10 -
5:15 - Prepare steak to cook / Peel potatoes
5:20 -
5:25 - Cook potatoes
5:30 - Cook steak
5:35 -
5:40 - Cook vegetables
5:45 - Mash potatoes
5:50 - Put food into serving dishes
5:55 -
6:00 - Serve food

DO SKILL SHEET 3

DO ACTIVITY SHEET 1

Preparing Foods and Interpreting Recipes

Skill Sheet 3

Directions: Study the menu items and cooking times listed below. Then list the items in the order in which they should be prepared.

MENU	COOKING TIMES
Broccoli	10 Minutes
Fried Chicken	45 Minutes
Baked Potatoes	40 Minutes
Brown & Serve Rolls	5 to 8 Minutes

Order of Preparation:

1. _____

2. _____

3. _____

4. _____

Preparing Foods and Interpreting Recipes

Activity Sheet 1

Directions: Study the menu items and times listed below. Look at the Order of Preparation list you prepared on Skill Sheet 3. In the space below, prepare a production schedule for this menu. Plan to serve the meal at 5:00 p.m.

MENU	TIME REQUIRED
Fried Chicken	45 Minutes
Baked Potatoes	40 Minutes
Broccoli	10 Minutes
Brown & Serve Rolls	5 to 8 Minutes
Get out utensils and equipment	15 Minutes
Put food into serving dishes	10 Minutes

3:30 - _____
3:35 - _____
3:40 - _____
3:45 - _____
3:50 - _____
3:55 - _____
4:00 - _____
4:05 - _____
4:10 - _____
4:15 - _____
4:20 - _____
4:25 - _____
4:30 - _____
4:35 - _____
4:40 - _____
4:45 - _____
4:50 - _____
4:55 - _____
5:00 - Serve Meal

Preparing Foods and Interpreting Recipes

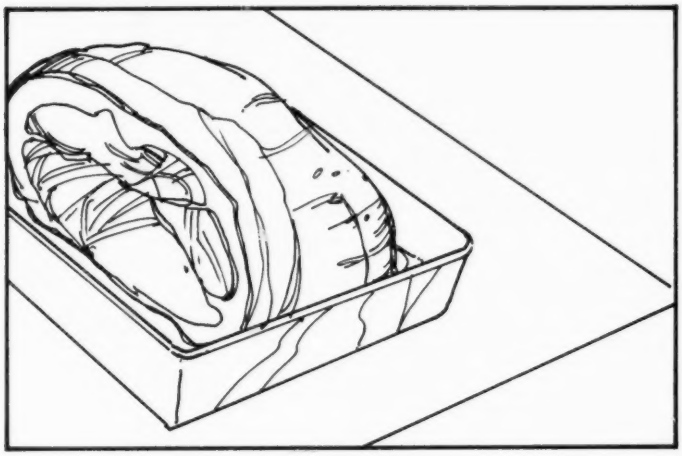
D. Identifying Food Preparation Methods

Food preparation involves assembling, cleaning, preparing, and cooking the food. Food service workers must be able to perform **exactly** the tasks indicated by each cooking, cutting, and mixing term given in a recipe.

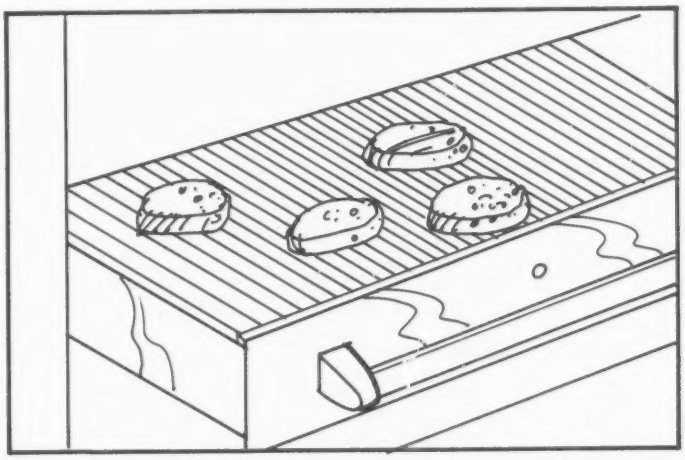
Cooking Methods

1. Bake - cook with dry heat in the oven

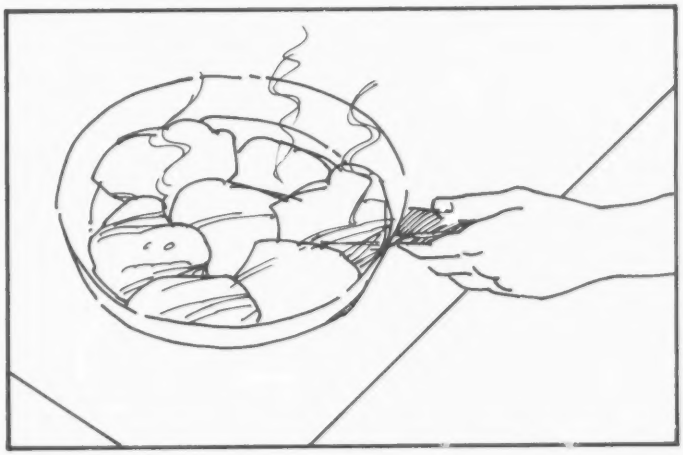
2. Roast - cook meat or poultry uncovered in an oven without adding liquid



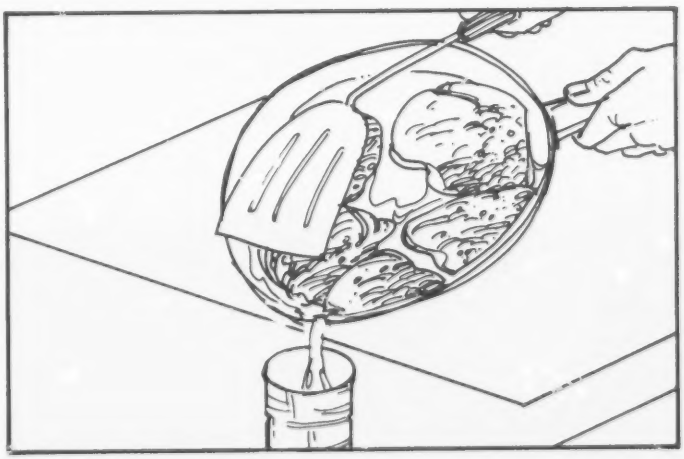
3. Broil - cook with dry heat from a source close to the food (such as electric coils, gas flames, or charcoal); the temperature is controlled by how close the food is placed to the heat source



4. Fry - cook in oil

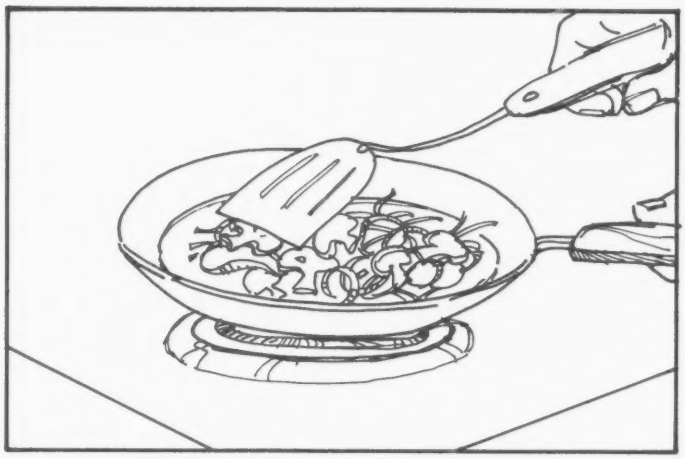


5. Panbroil - cook meat uncovered in a lightly greased skillet on top of the range; fat is poured off as it collects so that the food does not fry

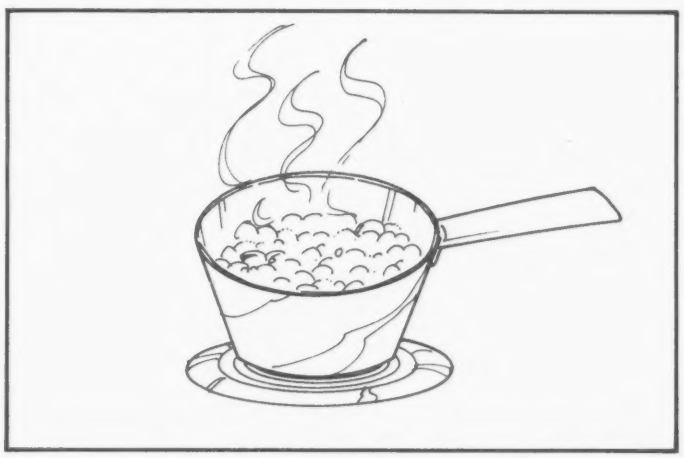


Preparing Foods and Interpreting Recipes

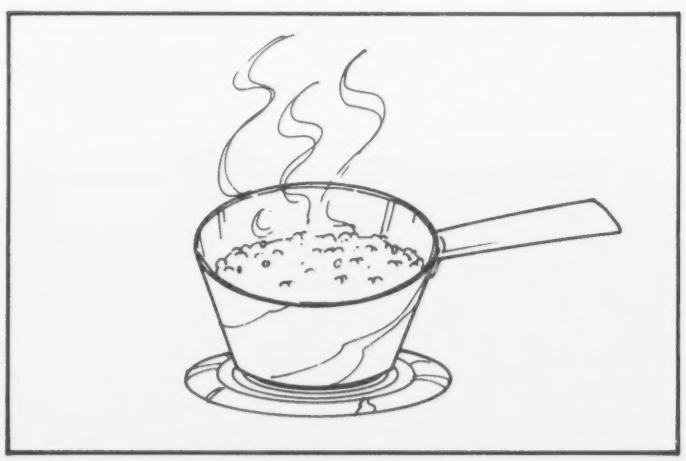
6. Saute - fry quickly in a small amount of fat



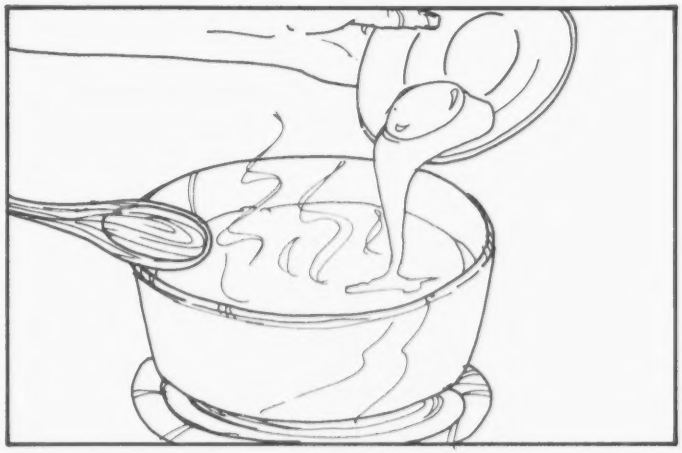
7. Boil - cook food covered by liquid which is at a temperature of 212° F (when bubbles appear).



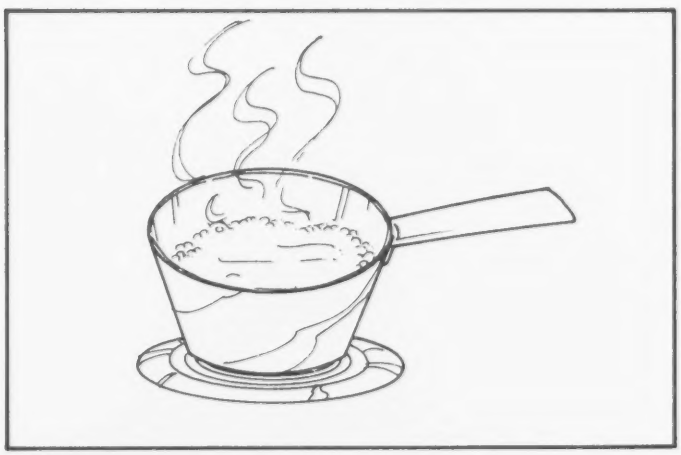
8. Simmer - cook just below the boiling point; small bubbles will be constantly forming on the bottom of the pan and slowly rising to to top (Temperature will be below 212° F.)



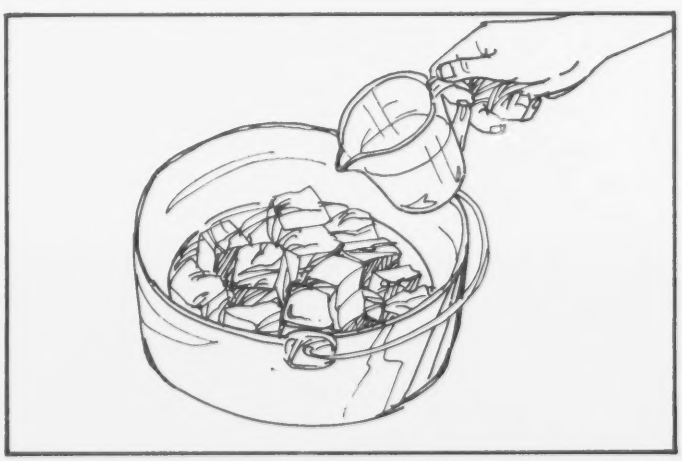
9. Poach - cook food in a little bit of water which is just below simmering; the water should just cover the food and will be about 160-180° F



10. Scald - heat a liquid (usually milk) until tiny bubbles appear around the edge

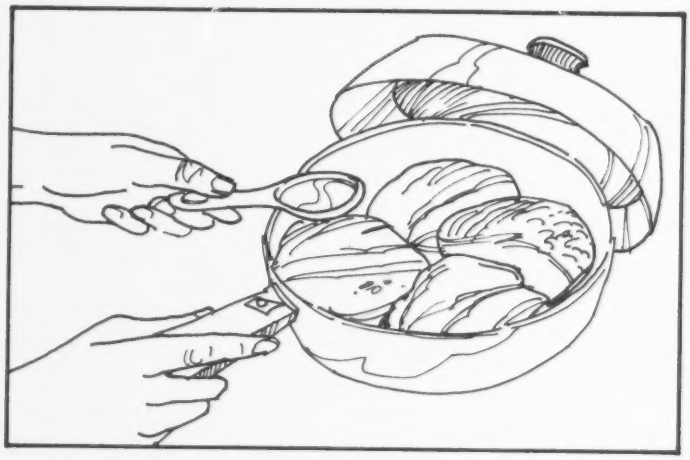


11. Stew - simmer food in a liquid for a long time

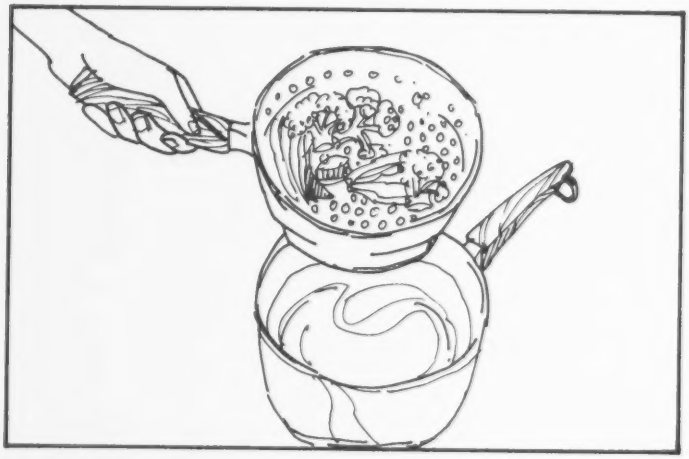


Preparing Foods and Interpreting Recipes

12. Braise - cook food in a small amount of liquid at a low temperature in a covered container

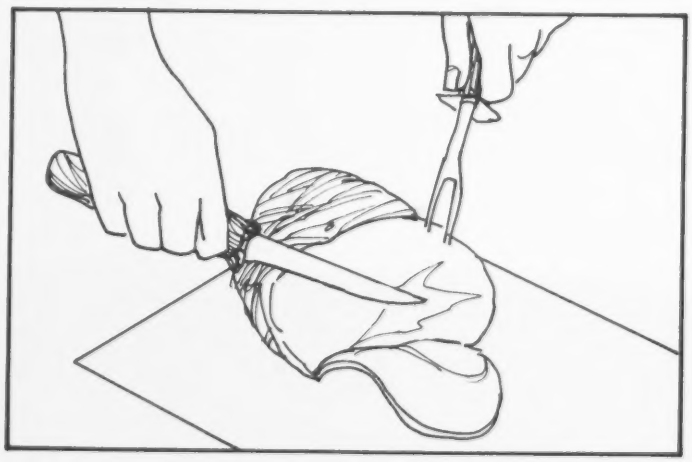


13. Steam - cook food inside a metal basket (or holder containing small holes) placed inside a pot with a small amount of boiling water, so the steam will cook the food (usually vegetables)

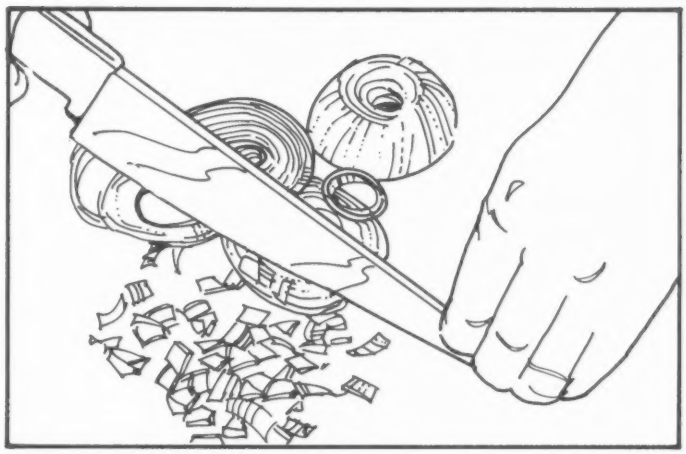


Cutting Methods

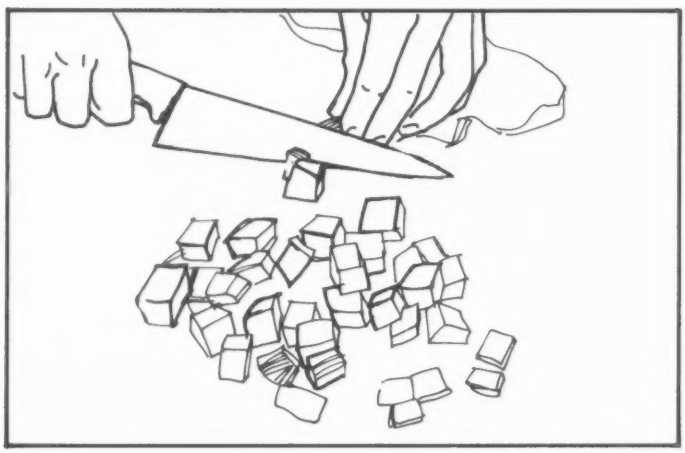
1. Bone - cut the meat away from the bones and joints
   NOTE: Slide the tip of the boning knife between the meat and the bone. Then cut closely along the bone, pulling the meat away with your free hand.



2. Chop - cut food into small pieces that are the same size **NOTE: Rest the point of a French knife on the cutting surface above the food and cut down with short, sharp strokes.**



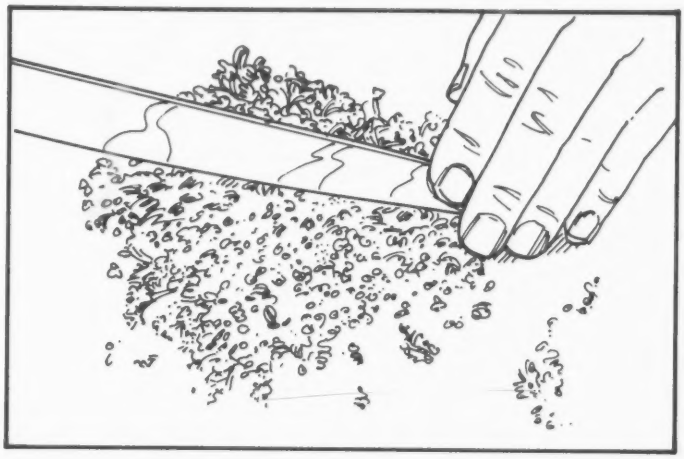
3. Cube - cut into chunks which are usually about ½ inch squares



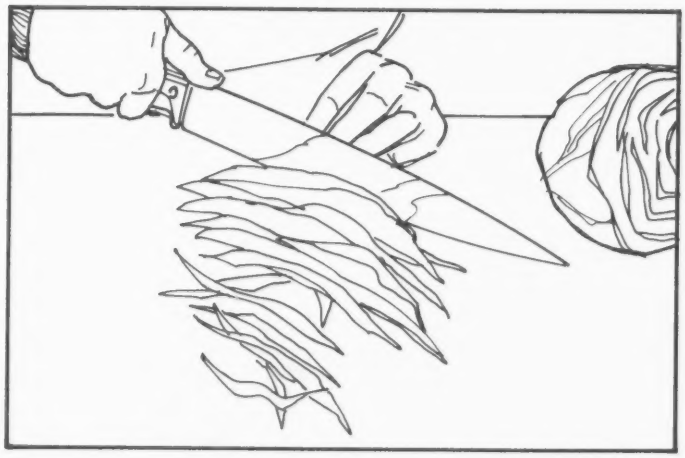
4. Slice - cut a food into thin pieces of equal thicknesses **NOTE: Make a smooth, even downward stroke. Try to keep the slice uniform in thickness from top to bottom.**

Preparing Foods and Interpreting Recipes

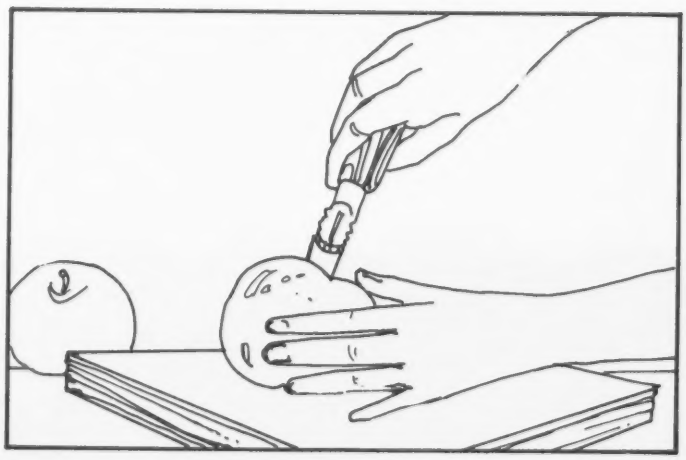
5. Mince - cut food into the smallest pieces possible
NOTE: Chop the food into fine pieces. Then chop it again, holding the point of the knife steady with your free hand and pressing down on the blade. Rock the blade back and forth.



6. Shred - cut into thin, narrow strips with a knife or shredder
NOTE: This is also called "julienne."

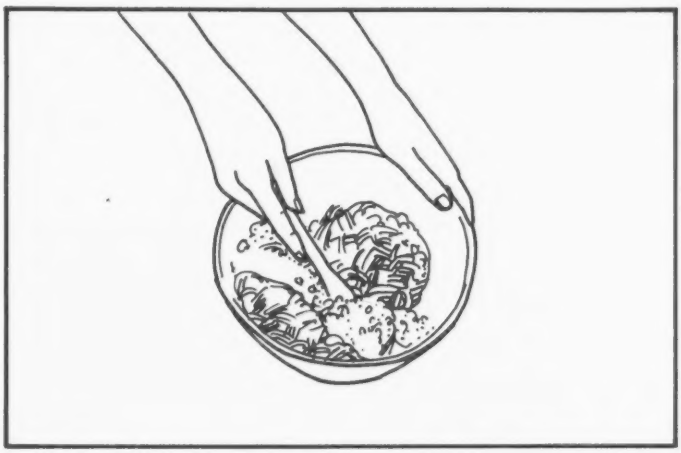


7. Core - cut out the center of a piece of fruit such as an apple

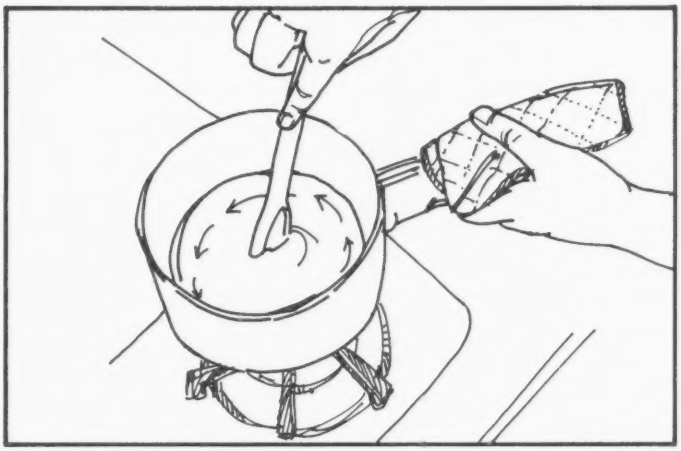


Mixing Methods

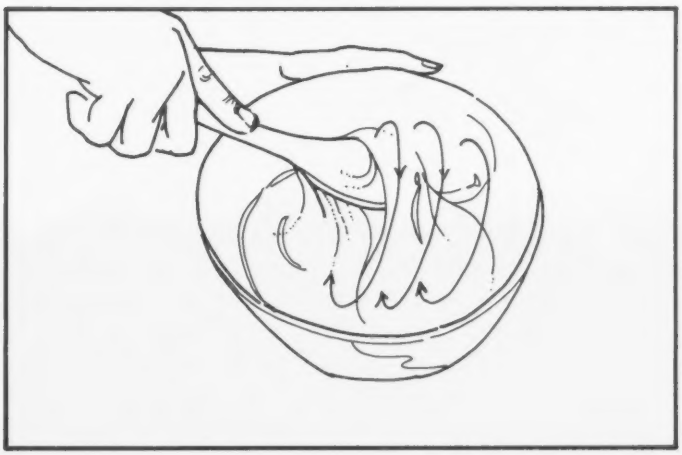
1. Blend - thoroughly mix two or more ingredients until you cannot tell one from the other using a spoon, electric mixer, or blender



2. Stir - move a spoon around and around in a bowl or saucepan in order to mix the ingredients.
NOTE: To keep the food from sticking, make sure the spoon touches the bottom and sides of the pan when you are stirring.

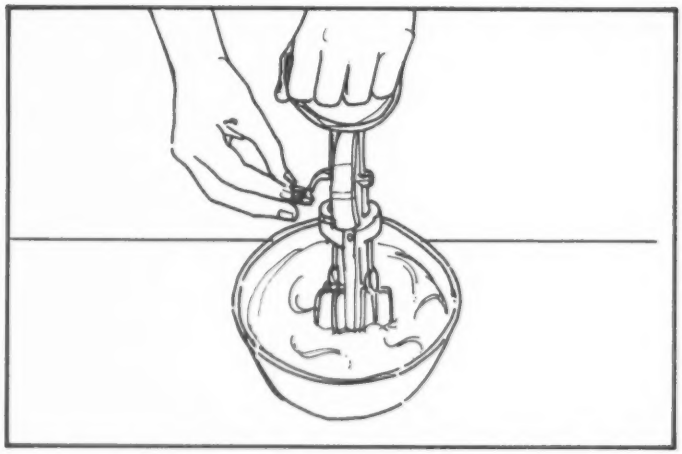


3. Beat - make a mixture smooth and light by lifting it over and over with a spoon, fork, wire whisk, hand beater, or electric mixer
NOTE: Tilt the bowl slightly when beating by hand. When using the hand beater, move the beater back and forth across the bowl.

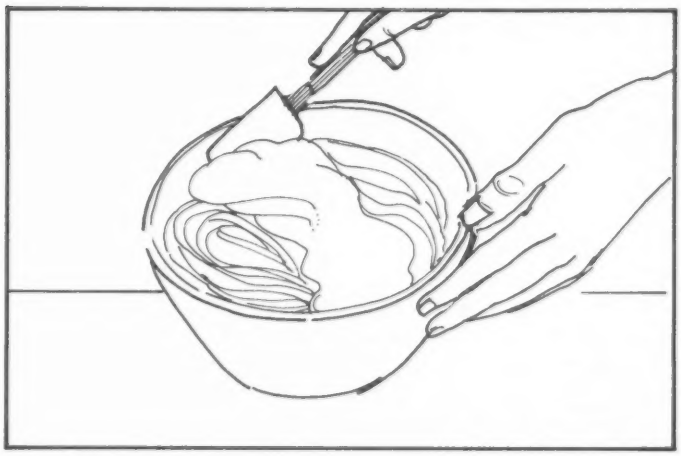


Preparing Foods and Interpreting Recipes

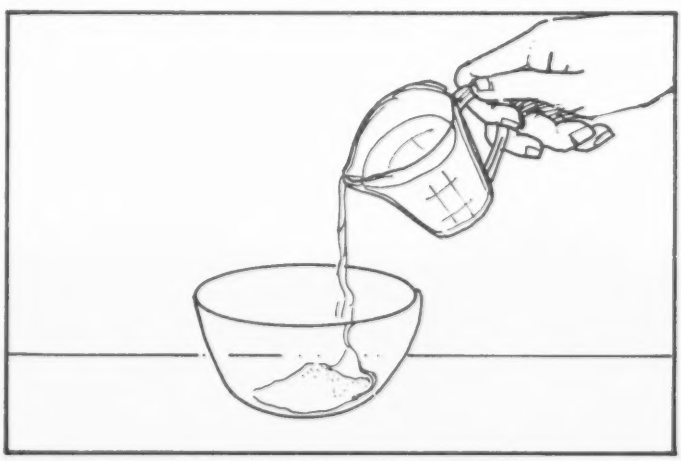
4. Whip - beat rapidly with a wire whisk, a hand beater, or an electric mixer to add air and increase volume



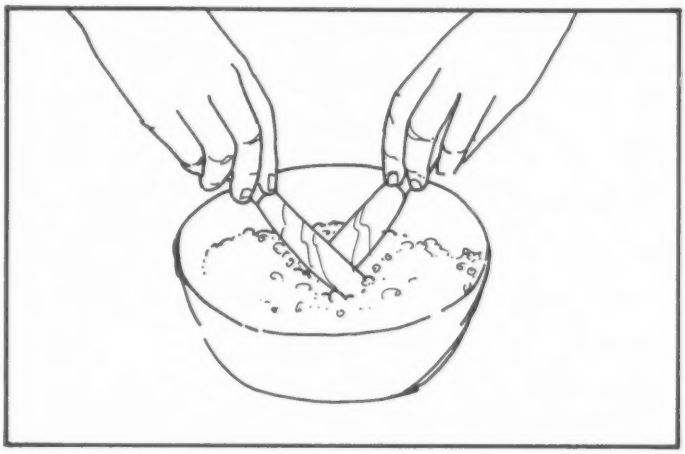
5. Fold in - combine delicate ingredients such as beaten egg whites or whipped cream with other mixtures without losing the air which has been beaten into them
   NOTE: Gently push a wire whisk or rubber scraper down through the mixture, across the bottom of the bowl, and up and over the top of the mixture.



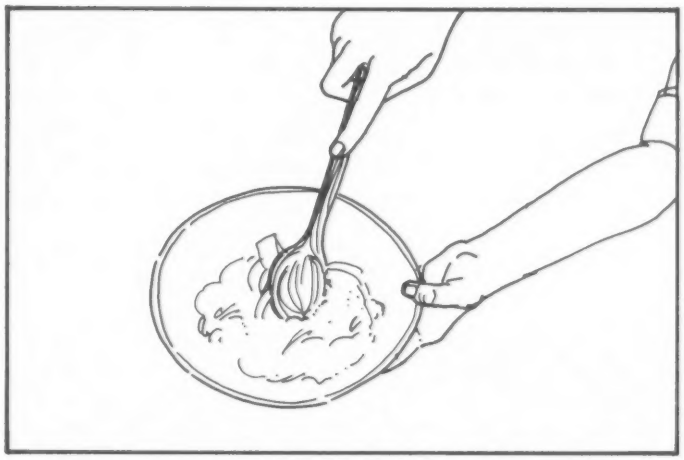
6. Dissolve - to turn a food such as sugar into a liquid form by mixing it with water



7. Cut in - combine shortening and a flour mixture when making biscuits or pastry
NOTE: Use a pastry blender or two knives in a scissor motion, cutting the shortening again and again until the particles are tiny enough.



8. Cream - mix shortening or butter with sugar using a mixer or the back of a spoon until the mixture is soft and creamy



E. Steps of Procedure for Following a Recipe

Study the recipe below. Note how the general steps for following a recipe can be applied to preparing this food.

Recipe for Baked French Cheese Omelet

Yield: 24 portions
(1 pan, 12 x 20 x 2)

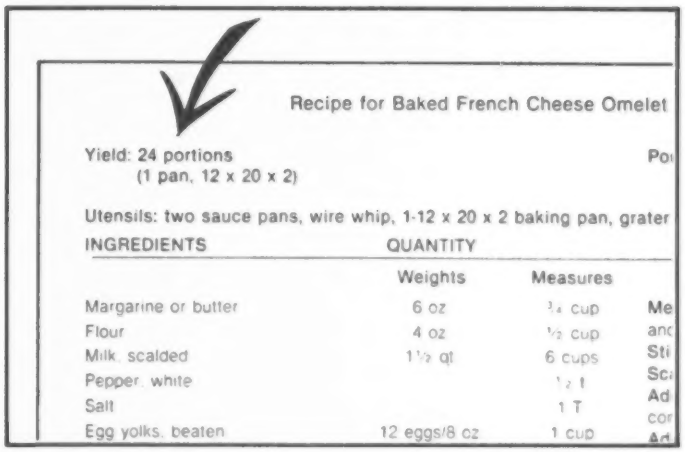
Portion Size: 3 oz. (4x6 size)

Equipment/Utensils: two sauce pans, wire whip, 1-12 x [illegible] x 2 baking pan, grater

INGREDIENTS	QUANTITY		METHOD
	Weights	Measures	
Margarine or butter	6 oz.	¾ cup	**Melt:** margarine. **Add:** flour and seasonings.
Flour	4 oz.	½ cup	**Stir:** until smooth.
Milk, scalded	1½ qt.	6 cups	**Scald:** milk.
Pepper, white		½ t.	**Add:** milk gradually stirring constantly. Cook until thick.
Salt		1 T	
Egg yolks, beaten	12 eggs/8 oz.	1 cup	**Add:** beaten egg yolks and mix well with wire whip.
Egg whites, beaten	12 eggs/14 oz.		**Beat:** egg whites until rounded peaks have formed.
Chedder cheese, shredded	8 oz. (½ lb.)	2 cups	**Stir:** into egg yolk mixture. **Add:** shredded cheese.
NOTE: Serve warm			**Pour:** into 1 greased 12 x 12 x 2 inch baking pan. **Set:** pan in pan of hot water. **Bake:** 325° F for 45 minutes or until set.

1. Carefully read the recipe all of the way through once. Review any terms and abbreviations. Look up the meanings of any unfamiliar terms before you continue.

2. Check the amount that the recipe will yield. If the recipe makes the desired yield, proceed with the recipe. If the recipe will not make the desired yield, increase or decrease it as needed. (See Basic Math Skill unit for instructions for increasing and decreasing recipes.) Recheck your figures.



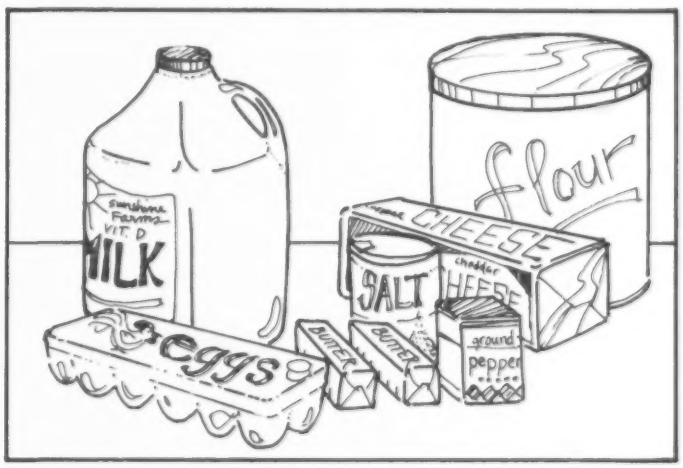
Recipe for Baked French Cheese Omelet

Yield: 24 portions
(1 pan, 12 x 20 x 2)

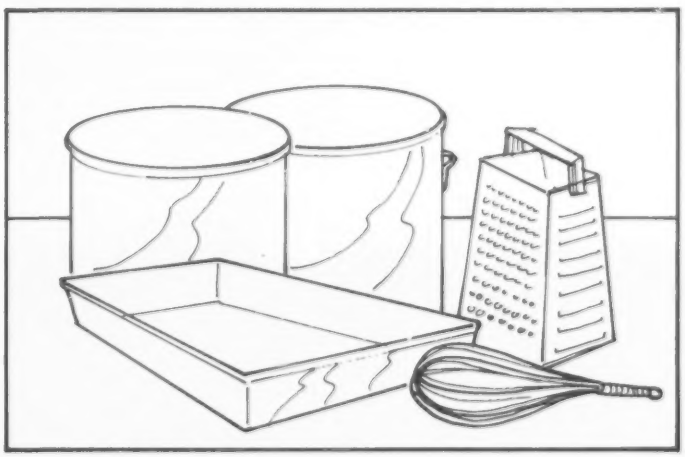
Utensils: two sauce pans, wire whip, 1-12 x 20 x 2 baking pan, grater

INGREDIENTS	QUANTITY	
	Weights	Measures
Margarine or butter	6 oz	¾ cup
Flour	4 oz	½ cup
Milk, scalded	1½ qt	6 cups
Pepper, white		½ t
Salt		1 T
Egg yolks, beaten	12 eggs/8 oz	1 cup

3. Assemble all ingredients. Be sure that you have the necessary amount of each ingredient. Use a cart or tray to assemble supplies. Roll food bins to the preparation area whenever possible. Always use opened containers first.



4. Collect all of the necessary equipment and utensils. Check also to see if other equipment which is needed will be available.

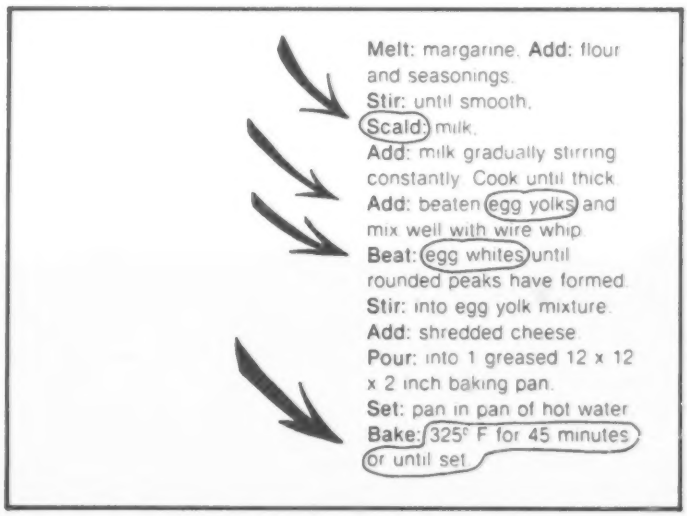


Preparing Foods and Interpreting Recipes

5. Reread the directions carefully.

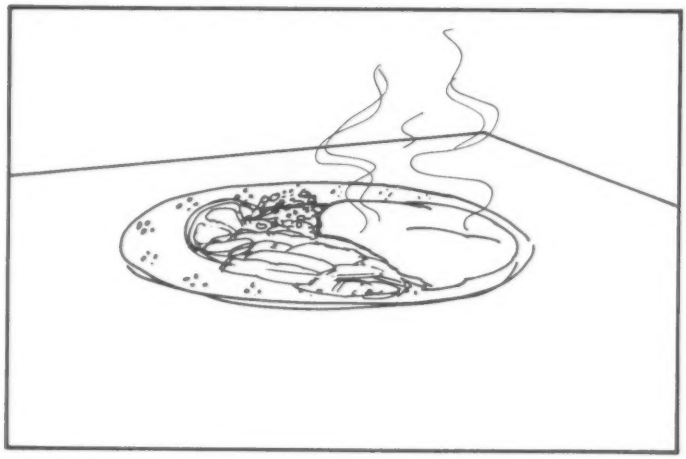
6. Think about each procedure and how you can plan the tasks. Check the time required for preparation and plan so that your product will be finished at the proper time.

7. Perform all pre-preparation tasks. Accurately weigh and measure each ingredient. Preheat the oven if necessary. Prepare each ingredient according to the exact terms specified in the recipe.

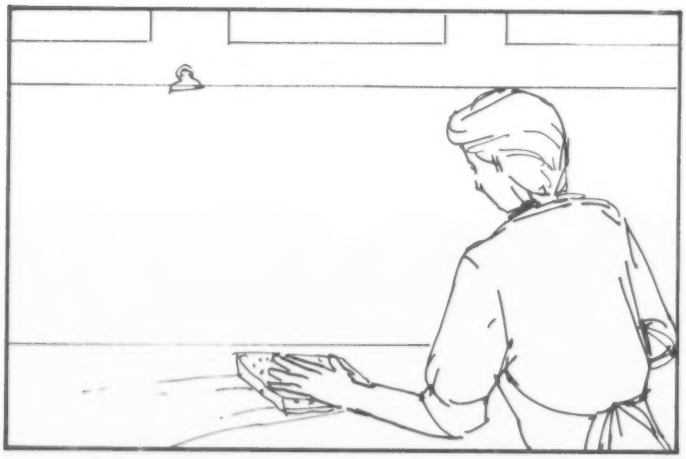

Melt: margarine. **Add:** flour and seasonings.
Stir: until smooth.
Scald: milk.
Add: milk gradually stirring constantly. Cook until thick.
Add: beaten egg yolks and mix well with wire whip.
Beat: egg whites until rounded peaks have formed.
Stir: into egg yolk mixture.
Add: shredded cheese.
Pour: into 1 greased 12 x 12 x 2 inch baking pan.
Set: pan in pan of hot water.
Bake: 325° F for 45 minutes or until set.

8. Follow the step-by-step instructions in the exact order in which they are written. Keep your work area clean while you work. Remember sanitation and safety every step of the way.

9. Follow the serving instructions carefully.



10. Clean your work area, utensils, and equipment. Return all materials to their proper places.



Unit Review

A. **Directions:** There are seven parts to a standardized recipe. Match each one to its correct definition by filling in the blank with the correct letter.

___ 1. Quantity	A. Additional information given at the end of a standardized recipe suggesting variations for serving recipe
___ 2. Yield	B. The part of the recipe that gives the exact amounts of ingredients needed
___ 3. Portion	C. The part of a recipe that lists the equipment needed
___ 4. Method/Instructions	D. The part of the recipe that gives step-by-step directions
___ 5. Ingredients	E. An individual serving
___ 6. Utensils	F. The part of the recipe that lists the food, spices, and flavorings to be combined to produce a certain dish
___ 7. Note	G. The amount of food a recipe will produce

B. **Directions:** Below are some of the steps you would take in preparing a menu consisting of meat loaf, baked potatoes, steamed mixed vegetables, and gelatin salad. These steps are not in the order in which they should be completed. Number the steps in the order you should perform them.

___ A. Combine the ingredients for the meat loaf and place it in oven. The meat loaf will take 1½ hours to cook.

___ B. Turn on the oven and set it to desired temperature. (Preheat)

___ C. Wash baking potatoes, rub with oil, place in foil and place in oven. These will bake in 1 hour.

___ D. Prepare gelatin and place in refrigerator to gel. This will take 3 to 4 hours.

___ E. Cook frozen mixed vegetables, season, and serve. This will take about 10 minutes.

C. **Directions:** Match the following cooking methods with the correct definitions by putting the correct letter in the blank space.

___ 1. fry
___ 2. bake
___ 3. roast
___ 4. broil
___ 5. scald
___ 6. braise
___ 7. simmer
___ 8. steam

A. Cook with dry heat in the oven
B. Cook with dry heat from a source close to food (such as charcoal, gas flames, or electric coils).
C. Cook in oil
D. Cook in a small amount of liquid at a low temperature in a covered container
E. Cook meat or poultry uncovered in an oven without adding liquid
F. Cook just below the boiling point; small bubbles will be constantly forming on the bottom of the pan and slowly rising to the top
G. Cook food inside a metal basket (or holder containing small holes) placed inside a pot with a small amount of boiling water, so steam will cook the food
H. Heat a liquid, usually milk, until tiny bubbles appear around the edge

D. **Directions:** Match the following cutting methods with the correct definitions.

___ 1. slice
___ 2. mince
___ 3. cube
___ 4. shred
___ 5. chop

A. Cut food into the smallest pieces possible
B. Cut food into small pieces that are the same size
C. Cut food into chunks which are usually ½ inch squares
D. Cut into thin, narrow strips (also called julienne)
E. Cut a food into thin pieces of equal thickness

E. **Directions:** Match the following mixing methods with the correct definitions.

___ 1. whip

___ 2. beat

___ 3. blend

___ 4. cream

___ 5. cut in

A. Thoroughly mix two or more ingredients until you cannot tell one from the other using a spoon, electric mixer, or blender

B. Beat rapidly with a wire whisk, hand beater, or electric mixer to add air and increase volume

C. Combine shortening and a flour mixture when making biscuits or pastry. Use pastry blender or two knives

D. Mix shortening or butter with sugar using a mixer or the back of a spoon until the mixture is soft and creamy

E. Make a mixture light and smooth by lifting it over and over with a spoon, fork, wire whip, hand beater, or electric mixer

F. **Directions:** Below are some of the steps you would take in preparing a food item from a recipe. Check the steps which must be done BEFORE you start to cook.

___ 1. Check the amount that the recipe will yield

___ 2. Follow the step-by-step instructions in the exact order in which they are written.

___ 3. Carefully read the recipe all of the way through once.

___ 4. Follow the serving instructions carefully.

___ 5. Reread the directions carefully.

___ 6. Assemble all ingredients.

___ 7. Clean your work area, utensils, and equipment.

___ 8. Collect all of the necessary equipment and utensils.

___ 9. Perform all pre-preparation tasks.

___ 10. Think about each procedure and how you can plan the tasks.

Preparing Foods and Interpreting Recipes
Performance Checklist

Student _____ has successfully performed the following steps of procedure.

	Interpreting Recipes	Yes	No	Comments
1.	Located recipe			
2.	Identified ingredients			
3.	Determined ingredient quantities			
4.	Identified equipment/utensils needed			
5.	Studied how to combine ingredients			
6.	Identified cooking times, temperatures, and methods			
7.	Determined recipe yield			
	Planning a Production Schedule			
1.	Made a list of things to do to prepare a meal			
2.	Estimated cooking and preparation time			
3.	Determined order of food preparation			
4.	Made a work schedule for preparation			
5.	Rescheduled conflicts as necessary			
	Identifying Food Preparation Methods			
1.	Identified cooking methods			
2.	Identified cutting methods			
3.	Identified mixing methods			
	Following a Recipe			
1.	Read and interpreted recipe			
2.	Checked recipe yield			
3.	Assembled ingredients			
4.	Collected equipment/utensils			
5.	Reread directions			
6.	Planned preparation			
7.	Performed pre-preparation tasks			
8.	Followed step-by-step instructions for recipe			
9.	Followed serving instructions			
10.	Cleaned work area and returned equipment			

Satisfactory - Should Move On ☐
Repeat This Unit ☐

_____
Student's Signature/Date

_____
Instructor's Signature/Date